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Tomorrow's FT launches a weekly page examining the impact of the new European currency, the Euro, on business and finance.

BARCLAYS TAKES A $419m CHARGE AS INTERNATIONAL BANKS COUNT THE COST OF EXPOSURE TO RUSSIA

Markets hit by further turbulence

By our international and financial staff

World stock markets suffered another turbulent session, as Monday's big fall on Wall Street was followed by a very volatile start to US trading.

Turbulence in Russia's markets also took its toll on international banks. Barclays, the UK bank, said it had written down its exposure to Russia to 10 per cent of its dollar value, resulting in a £250m ($419m) pre-tax charge.

European and Asian stock markets mostly finished lower, as a new month brought no respite to bourses that have fallen substantially since mid-July. Zurich, Frankfurt and Madrid have all lost more than 20 per cent since their peak, the conventional definition of a bear market.

But concerns that Monday's 512-point fall in the Dow Jones Industrial Average, which wiped out all the US market's gains for the year, might prompt a global rout proved unjustified.

There were signs that some investors were selling bonds to move back into the equity market at depressed prices. The 30-year US Treasury bond fell more than a point in early trading and European bonds were also weaker.

With the exception of south east Asia, where the introduction of capital controls in Malaysia damaged sentiment, equity losses were modest by recent standards. Tokyo gained nearly 2 per cent, helped by a stronger yen.

However, Barclays was one of several banks yesterday to announce Russia-related losses or hint at adjustments to provisions.

Nomura Securities, Japan's largest broker, said its joint UK and US operations had incurred losses of $350m on holdings of Russian government bonds as of August 31.

Martin Taylor, chief executive, said Barclays' charge reflected the deterioration of the outlook for Russia in recent days. "If we had been making these provisions last week, we would have been much lower than £250m," he said. "From [last] Wednesday to today [Tuesday], it has changed another £100m."

Bankers Trust of the US said it had made a pre-tax trading loss of about $350m so far in the third quarter. The loss was "primarily attributable" to charges to cut exposure to Russian securities to 15 per cent of face value. As of Monday, its remaining exposure in Russia was $350m.

In Germany, Dresdner Bank said it was reconsidering estimates of its exposure to Russia, and Deutsche Bank said it might raise its risk provisions, which stand at about 50 per cent, depending on market developments. So far, Deutsche has said it has DM1.35bn ($767m) in loans linked to Russia that were not guaranteed by state agencies.

Credit Suisse First Boston, one of the banks most heavily exposed to Russia, was one of the first to make a statement. It is likely to give an updated figure when it reports first-half results next week.

Barclays' net securities trading exposure to Russia was £340m. It is valuing all Russian exposure at 20 per cent of its rouble value but assuming a dollar exchange rate of Rbs12, compared with Rbs6 before last month's devaluation.

Barclays said its Barclays Capital subsidiary had lost another £75m pre-tax in July and August in other markets because of the knock-on effects of the Russian turmoil.

Most investors were transfixed by yesterday's Wall Street gyrations, where the Dow reversed directions several times in early trading, alternating between a loss of more than 100 points and a gain of over 200.

In London, the FTSE 100 index fell 80.3 to 5,169.1, more than 1,000 points below its all-time high of July 20. But the Paris market fell only 0.2 per cent, and in Frankfurt, the Xetra Dax index rebounded to gain 0.9 per cent on the day.

Reporting by Philip Coggan and Clay Harris in London, John Authers and William Lewis in New York and Graham Bowley in Frankfurt

RELATED NEWS AND FEATURES

Clinton insists on Moscow action plan before renewed aid

By Stephen Fidler and John Thornhill in Moscow

President Bill Clinton said yesterday Russia's financial crisis should not deflect the country from moving towards a free market economy. But he was told by Russian officials the current turmoil could lead to greater state involvement in the economy.

On the first day of Mr Clinton's two-day visit to Moscow, US officials made plain to the Russian government that Washington's backing for more international financing for Russia would not be forthcoming until a plan of action had emerged.

However, the political stand-off between Russia's president and parliament, which is preventing the formation of a new government, grew still sharper yesterday. President Boris Yeltsin stepped up the pressure on MPs to approve Victor Chernomyrdin as prime minister in spite of mounting opposition. "I insist that Chernomyrdin be confirmed as prime minister as soon as possible," he said. "Every day that is wasted means millions and millions in losses."

Gennady Zyuganov, leader of the Communist party, the biggest parliamentary faction, said his members would never back Mr Chernomyrdin's return to government. Mr Chernomyrdin's nomination as prime minister was rejected by parliament this week. He can be resubmitted twice before elections are called.

Meanwhile Mr Chernomyrdin said yesterday he had decided to pay all Russia's foreign debts due in September, news agencies reported.

Mr Clinton had a 90-minute meeting with Mr Yeltsin, raising issues such as Kosovo, Iran and Iraq before a working lunch to discuss the economy. Mr Yeltsin, the subject of repeated rumours of ill-health, was described by Strobe Talbott, deputy US secretary of state, as "vigorous, very much engaged ... on top of an extremely difficult situation".

Mr Clinton also had a 35-minute discussion with Mr Chernomyrdin in the car from the airport. Mr Chernomyrdin, after telling MPs this week Russia stood on the brink of political and economic breakdown, set about forming his cabinet, arguing the country could not afford delays.

Mr Clinton, in a speech at the Moscow University of International Relations, outlined what he said were lessons of international experience for Russia as it faced its financial crisis. In tough times, governments needed stable revenues to pay bills. "That requires decisive action to ensure that everybody pays their fair share of taxes. Printing money to pay the bills and bail out the banks does not help."

Meanwhile, Vladimir Petrov, Russia's acting first deputy finance minister, was arrested yesterday under suspicion of taking bribes.

Observer, Page 11

Boris Yeltsin greets Bill Clinton as US Secretary of State Madeleine Albright looks on yesterday — Reuters

Boeing sacks chief of civil aircraft division

By Michael Skapinker, Aerospace Correspondent

Boeing of the US has dismissed Ron Woodard as head of its commercial aircraft division after months of production difficulties. He has been replaced by Alan Mulally, head of the group's defence division.

The sacking of Mr Woodard, 55, follows repeated rumours that he would pay the price for the production difficulties, which last year helped to push Boeing into a $178m net loss, its first for 50 years.

Boeing has, over the past few months, frequently denied rumours that Mr Woodard and Phil Condit, chairman, were leaving.

On Monday, however, Boeing's board decided Mr Woodard should be replaced. Yesterday he was still talking to Boeing about whether he should move to another post or leave the group, where he has worked for 32 years.

The board is believed to have acted following previously undisclosed cost over-runs, totalling hundreds of millions of dollars, at the Boeing factory in Wichita, Kansas, where it makes parts for its single-aisle aircraft.

Boeing said yesterday that it was sticking by Mr Condit's forecast that net earnings this year would be about $1bn.

Staff at Boeing, who could not recall a previous high-level sacking, were stunned by the news of Mr Woodard's departure from his post.

Mr Condit said Mr Mulally's stewardship of the defence division since Boeing took over McDonnell Douglas last year made him a better candidate to run the civil aircraft division. Mr Mulally, 53, also has long experience in Boeing's commercial division.

Mr Condit said: "We have experienced unsatisfactory financial performance with our commercial airplane operations. Our expectations are that commercial airplane operations produce significant, double-digit operating margins. We concluded there must be significant changes in the composition of the management team."

He said Mr Mulally's success in reorganising the defence division had been "outstanding". Mr Mulally was expected to "bring a level of intensity and focus to commercial airplane operations that will achieve the results our employees, customers and shareholders want".

While Mr Woodard and Mr Mulally are both Boeing veterans, their management styles are markedly different. Mr Woodard is famed for his plain speaking, and the youthful-looking Mr Mulally is tactful and diplomatic. Mr Mulally, an aeronautical engineer, has received a leadership award from the Boy Scouts of America.

Paying for 'surprises', Page 14

WORLD NEWS

Sinn Féin pledges to make violence 'thing of the past'

Gerry Adams, president of Sinn Féin, the IRA's political wing, offered an olive branch to Northern Ireland unionists, committing his party to making violence "a thing of the past". Page 8

Belgian political system on trial
A former Nato secretary-general and the head of one of France's biggest defence groups go on trial in Brussels in a corruption case whose revelations could undermine the Belgian political establishment. Page 6

France tries Islamic militants
The trial of nearly 140 suspected Islamic militants accused of aiding insurgents in Algeria opened in France.

Cyprus 'confederation' rejected
The Cypriot and Greek governments rejected a proposal by Rauf Denktas, the Turkish Cypriot leader, that the island's Greek and Turkish communities solve their differences by forming a confederation. Page 6

$1bn EU aid for Bangladesh
The European Union approved $1bn in aid for the victims of flooding in Bangladesh. More than 550 people have been killed, and some 25 million displaced by the floods.

Angola closer to resuming war
Angola lurched closer to a full resumption of civil war by excluding the former rebel movement Unita from parliament and government in Luanda. Page 6

Microsoft accused of intimidation
The US government broadened its legal attack on Microsoft by accusing the world's largest software company of trying to intimidate sector giants to protect its monopoly. Page 12; US government broadens attack, Page 7

Deals 'to make the world safer'
The US announced two arms control agreements with Russia that it claimed would make for a safer world. Page 3

Mexico City police shake-up
Mexico City's new police chief has announced plans to reorganise the force in a policy shake-up intended to tackle the crime wave plaguing the city. Page 7

Vietnam dissident freed
Vietnam's best-known dissident, Doan Viet Hoat, serving 15 years for publishing pro-democracy newsletters, was freed from Hanoi Prison and flown to Bangkok. US Officials have accepted him for resettlement.

Philippines president prevails
Joseph "Erap" Estrada, new president of the Philippines, appears to have won a fight for control over the country's industrial development at Subic Bay, former US military base. Page 4

Former Financial Times editor dies
Sir Gordon Newton, editor of the Financial Times for 22 years until 1972, died on Monday at the age of 90. One of the architects of today's FT, he transformed it into a world-ranking economic and political newspaper and was one of the outstanding figures of financial and economic journalism in the post-war era. Page 8

BUSINESS NEWS

Malaysia pulls ringgit out of currency markets

Mahathir Mohamad, the Malaysian prime minister, imposed currency controls to take the ringgit out of international financial markets. He also announced restrictions on currency holdings in an attempt to regain authority over his economy. Page 12; Editorial Comment, Page 11

Canal Plus, the French media group, said four top Italian soccer teams had awarded exclusive broadcasting rights to Telepiú, its 90 per cent-owned Italian subsidiary. Page 16

Banque Bruxelles Lambert, Belgium's third-largest bank, announced a 15 per cent increase in first-half net profits despite an increase in write-downs and provisions. Page 16

Spain's mobile telephone market enabled the Telefónica group to maintain high profit growth in the first half, with a 16.2 per cent rise in consolidated net earnings to Pta98.11bn ($640m). Page 13

Volkswagen confirmed its ambition to expand into the heavy truck business but pulled back from earlier statements that it intended to do so by buying a leading manufacturer. Page 16

Daimler-Benz's once loss-making commercial vehicles division is set to meet the group target of a 12 per cent return on capital employed this year for the first time. Page 13

Ericsson, the Swedish telecoms group, has cut business ties with Burma because of threats of a consumer boycott by US activists hostile towards the ruling military junta. Page 16

IBM is thought to have received up to 12 expressions of interest from telephone companies keen to buy its $4bn international data network. Page 13

Hoechst of Germany suffered a further setback to its restructuring efforts with the announcement that a joint venture with Mobil had foundered. Page 13

Southcorp, the Australian wine, appliance and packaging group, posted record profits on strong demand for its wine in Europe and North America. Page 15

Mayr-Melnhof Karton, the Austrian group which is Europe's biggest cartonboard maker, is seeking a buyer for its waste paper recycling business. Page 16

US manufacturing slowed in August for the third month as the Asian economic crisis continued to hit exports. Page 7

KPN, the privatised Dutch telecoms group, achieved a record increase in first-half volumes. Page 16

Romania is trying to renegotiate the terms of a $1.5bn deal with Bell Helicopter of the US. Page 4

World Equity Markets
The latest trends and data from more than 50 national markets at a glance
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WORLD MARKETS

STOCK MARKET INDICES		
New York: Lunchtime		
Dow Jones Ind Av	7693.29	(+154.22)
NASDAQ Composite	1535.49	(+36.24)
Europe and Far East		
CAC40	3846.29	(-5.56)
DAX	4791.81	(-42.06)
FTSE 100	5169.1	(-80.3)
Nikkei	14369.63	(+261.74)
US Lunchtime RATES		
Federal Funds	5¼%	
3-mth Treas Bills: Yld	4.92%	
Long Bond	1029	
Yield	5.32%	
OTHER RATES		
UK: 3-mo Interbank	7½%	(same)
UK: 10 yr Gilt	113.4688	(114.164)
France: 10 yr OAT	108.62	(107.05)
Germany: 10 yr Bund	107.31	(107.78)
Japan: 10 yr JGB	112.56	(112.831)
NORTH SEA OIL (Argus)		
Brent Dated	$12.065	($11.85)

GOLD		
New York: Comex		
(Sep)	$279.0	($275.7)
London:		
	$279.05	($275 15)
EXCHANGE RATES		
Dollar		
New York: Lunchtime		
£	1.676	
DM	1.74845	
FFr	5.87	
SFr	1.43825	
Y	138.525	
London:		
£	1.678	(1.6745)
DM	1.7493	(1.7635)
FFr	5.8665	(5.9100)
SFr	1.4398	(1.4463)
Y	138.43	(141.190)
Tokyo Close		Y 138.225
Sterling		
DM	2.9352	(2.9530)

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WORLD NEWS

MARKETS IN TURMOIL

GLOBALISATION THE BIG AMERICAN COMPANIES THAT BENEFITED FROM THE BOOM OF THE 1990S ARE THE ONES WORST HIT BY THE CURRENT UPHEAVALS

Global companies see their world turned upside down

By Richard Waters and John Authers in New York and Paul Taylor in London

A small band of global companies has prospered from the so-called New Era thinking that has captivated Wall Street for much of the 1990s. Now, with the stock market in disarray, it is those companies that have been worst hit.

The investment philosophy behind the bull market has rested heavily on the belief that a period of sustained growth and ever-rising productivity would be ushered in by the revolution in information technology and the triumph of free market capitalism around the world.

The stocks that benefited most from this view were companies such as Coca-Cola, which has come to symbolise the globalisation of American business, and the twin technology giants of Microsoft and Intel. They are also the ones that have now suffered the most. "We have see the upside of globalisation for the last seven years – now we are seeing the downside," said Jeffrey Applegate, equity strategist at Lehman Brothers.

By early afternoon yesterday, Coca-Cola had lost more than a quarter of its value compared with the peak it hit last month, more than the overall loss of the Dow Jones Industrial Average of which it is a part. Both Microsoft and Intel were down about a fifth.

These well-managed, large-capitalisation global companies had until recently been immune from a weakening in stock prices more generally.

Small companies have been pummelled for some time: the Russell 2,000, the most widely followed index of small stocks, hit its peak as early as April and has since fallen by 30 per cent.

Multinationals had been held out as immune from such declines, thanks to their global reach and the rapid growth and supposedly secure profit gains that seemed to justify a premium stock market rating.

Companies which have used their high stock market valuations to fuel acquisitions have also fallen back. Travelers, the financial services group in the midst of a planned merger with Citicorp, has seen its stock price plunge by more than 40 per cent from the peak: WorldCom, which is on the brink of completing an acquisition of MCI Communications, has lost nearly 30 per cent.

Among particular stock market sectors, meanwhile, it has been technology and financial services – the two biggest engines behind the earlier run-up in stock prices – that have suffered the worst losses.

The fall in tech stocks, particularly those in the internet sector, have prompted some investors and analysts to question whether the "internet bubble" has finally burst. Among the biggest price declines have been seen in internet "portal site" stocks such as Yahoo, the most visited site on the web, Excite, the second most visited site, Netscape, which helped launched the internet stock boom, and Amazon.com, the internet book retailer.

Most internet stocks fell by between 20 and 30 per cent on Monday and continued to slip in early trading yesterday. a

Bank stocks, had already been falling heavily for six weeks. Since peaking on July 14, the Philadelphia Stock Exchange/Keefe Bruyette & Woods bank index has dropped more than 31 per cent.

More than half of the fall came before last week, when banks started announcing their losses as a result of the Russian crisis.

STOCK OPTIONS

Blow to executive pay packets

By Richard Tomkins in New York and Jonathan Ford in London

Top executives of some of the world's biggest corporations have suffered paper losses running into millions of dollars a head as a result of the recent stock price declines.

The executives are out of pocket because of the fall in value of their stock options, which allow them to buy shares in the company at a set price in the future.

The losses are particularly high in the US, where many chief executives have been taking a high proportion of their remuneration in the form of stock options than in pay and bonuses.

William Mercer, an employee benefit consultancy, says that last year, 138 out of 350 large US corporations gave their chief executives stock option "mega-grants" with a face value of more than three times their pay and bonus.

Examples of those hit hardest by the recent stock price declines include Jill Barad, chairman and chief executive of Mattel, the toymaker, and George Fisher, chairman and chief executive of Eastman Kodak, the photo imaging company, both of whom have suffered paper losses exceeding $20m.

Many executives have seen the value of their options fall "under water", or below the exercise price – a phenomenon that could trigger controversy over whether they should be repriced.

Some companies say repricing is necessary to retain top talent, but shareholder activists strongly oppose that because it extends an advantage not available to other shareholders.

Senior UK executives have fared better because of the Long Term Incentive Plan (L-Tip), a remuneration scheme that has progressively replaced share options since its introduction in 1993. Three quarters of companies in the FTSE 100 index operate L-Tips.

Unlike share options, L-Tips do not involve any payment by the executive. Instead, awards of free shares are made annually, the variable being the size of the grant, which depends on the company having met certain performance targets.

These are generally measured relative to a company's peer group or fellow index constituents, further insulating the executive from adverse market movements.

An investor gazes at share prices at the Tokyo Stock Exchange yesterday. The Nikkei average closed higher on the day — Reuters

NEW LISTINGS INITIAL PUBLIC OFFERING PLANS POSTPONED IN GERMANY AND US

IPOs waiting on calmer times

By Vincent Boland in London and Graham Bowley in Frankfurt

The sharp stock market correction brought on by Russia's financial collapse is bad news for companies looking to gain a stock market listing, and good news for those that want to buy back their shares.

Several US companies and one German group planning initial public offerings (IPOs) have postponed the deals to await calmer markets. It is a trend that has become increasingly evident in recent weeks, and some observers say the US IPO market, the most active in the world, may soon slow down sharply.

But there is evidence that more companies are planning to buy back their shares, a move that often boosts a stock's performance. At least four small US companies yesterday said they had approved buy-back schemes, claiming their share prices were undervalued at current levels.

Investment bankers were yesterday insisting it was too early to say whether any of the big-ticket IPOs due in the second half of the year would be affected by the stock market correction. But they agreed that price expectations by sellers – including governments in the middle of privatisation programmes – would need to be substantially revised downwards.

"A lot of these [privatisation] deals need to be done for fiscal or strategic purposes, and they are still on track even if governments do not raise as much money as they had hoped," said the head of equity capital markets at a London-based bank.

Germany's new stock exchange for high technology companies, the Neuer Markt, became the latest casualty of the turbulence yesterday when a company delayed its IPO. Morphosys, a Munich-based biotech company became the first group on the exchange to postpone its public offering because of the volatility. Several other new companies plan to launch shares on the Neuer Markt in coming weeks.

The year's most eagerly awaited IPO is of Goldman Sachs, the US investment bank. Shares of investment banks have taken a severe battering in the current downturn because of their Russian exposure. However, analysts in New York said it was "far too early to say" what impact the crisis would have on Goldman's plans: the listing is not due until November.

Some of the biggest European deals in the second half of 1998 are of telecoms privatisations – TPSA of Poland, Swisscom of Switzerland and OTE of Greece.

European institutions remain flush with liquidity, however, and a "flight to quality" in the IPO market appears more likely than their wholesale rejection. But as one banker noted: "The IPO market thrives on stability and confidence. The whole market environment is not conducive to new issues at the moment."

RUSSIAN BONDS JAPANESE BROKER HIT

$350m losses for Nomura

By Gillian Tett in Tokyo

Nomura Securities, Japan's largest broker, yesterday said its joint UK and US operations had incurred combined losses of $350m on their holdings of Russian government bonds at the end of August.

The loss is equivalent to almost half of the Y102bn ($728m) consolidated pre-tax profits that the brokerage reported in the 1997 fiscal year.

It highlights the degree to which the political and financial turmoil in Russia has inflicted damage on a circle of international banks.

Nomura yesterday denied that the loss would have any "material" impact on its financial standing. It pointed out that shareholders' equity totalled about Y1,800bn or $13.5bn at the end of March. Nomura's share price yesterday closed at Y1,359, compared with Y1,370 on March 31.

"Nomura and its subsidiaries are extremely well capitalised and the situation in Russia will not have any material impact on the group's ability to support its activities," it said.

Nomura is the largest and healthiest of the Japanese brokers, and is considered better placed to absorb the blow than most of its rivals. However, analysts yesterday said the scale of other banks' exposure remained unclear.

Daiwa and Nikko, Japan's second and third largest brokers, have not yet indicated their exposure. However, a Nikko spokesman yesterday said the exposure was "considerably smaller than Nomura's".

Japanese banks' potential losses are believed to be relatively small compared with the damage they have suffered in south-east Asia in recent months.

Japanese bank lending to Russia totalled $985m at the end of last year, according to data from the Bank for International Settlements. Bank of Tokyo-Mitsubishi had the largest proportion of this, with about $260m in uninsured, non-guaranteed exposure to Russia. However, this represents just 0.09 per cent of the bank's total loan portfolio.

Wall Street: shock to the system?

SOVEREIGN BORROWERS ALTERNATIVE LENDERS WILL BE NEEDED

'Tap turned off' for emerging markets

By Edward Luce, Capital Markets Editor

Emerging market governments could be shut out of the international financial markets for the rest of the year and possibly for much longer, said economists yesterday.

The effect of the recent effective default by Russia and the market sell-off around the world will compel emerging markets to seek alternative sources of funding, they say.

"The international tap has once again been turned off," said Peter West, chief economist at BBV Latinvest, in London yesterday. "The markets won't look at emerging market paper for a while. And when they do it will be very expensive for governments to raise money internationally."

Bankers say the countries worst affected will be those with the heaviest financing requirements, which include Thailand, Malaysia, South Korea, Brazil and Venezuela. Brazil, which has a budget deficit of 7 per cent of gross domestic product, was singled out as one of the main victims of the credit crunch.

"Governments everywhere will have to be very inventive to find the capital they need to plug their budget and current account deficits," said Manmohan Kumar, a director of global emerging markets strategy at Credit Suisse First Boston. "If the crisis continues they will have no choice but to sacrifice any economic growth through higher interest rates or through much lower spending."

Economists say there are a number of alternative sources of financing for emerging markets, including their domestic bond markets, revenues from privatisation, the international loan markets and – in a genuine emergency – assistance from OECD governments. Of these, the most obvious is the domestic bond markets.

"Countries like Brazil can raise money from their domestic bond markets but it means paying much higher interest rates which will choke off economic growth," said Mr West. "The longer markets are cut off from international capital, the further their growth rates will fall."

BBV, like other finance houses, has cut its forecast of Latin America's 1999 average growth rate from 3.5 per cent earlier this year to just 1 per cent this week.

Another alternative is to issue asset-backed bonds or securitisations. By earmarking collateral, such as oil revenues or telephone receipts, to service the bond, the borrower can achieve a much higher credit rating than on a straight bond issue. This could provide the international investor with sufficient comfort to return to emerging market paper once the crisis has stabilised.

But – given the limited amount of collateral available – asset-backed bonds are unlikely to fill more than a fraction of the funding gap.

Bankers say there may be some scope for governments to take out loans from the syndicated debt markets but at punitively high margins. With the average spread on J.P. Morgan's emerging market bond index hitting 14.38 percentage points yesterday (compared to a low of just 3.3 points last October), the bond markets are no longer an option for emerging market borrowers.

Turkish move to check outflows

Mesut Yilmaz, Turkish prime minister, has announced measures designed to check capital outflows from Turkey's money markets, which have exceeded $2bn since Russia effectively devalued the rouble on August 17, reports **Christopher de Bellaigue from Ankara.**

Mr Yilmaz hopes to steady the markets through the abolition of a 6 per cent withholding tax on interbank operations, combined with the repeal of a decree forcing banks to limit forward operations to 15 per cent of their equity capital. Both measures were brought in in July as part of an anti-inflation push.

Mr Yilmaz was prompted to act by growing indications that Turkey's economy has not, as some predicted, remained isolated from woes in other emerging markets.

Although Turkey's markets resisted bad news from Russia and Japan earlier in the year, yields on government bonds have soared from 78 to 130 per cent since the end of July. The stock exchange index has fallen 45 per cent in six weeks. Since August 17, the central bank has parted with more than $2bn in foreign reserves to prop up the lira.

Analysts are divided over whether Mr Yilmaz's measures, which came into effect yesterday, will calm nerves in the long term. According to Adil Rizvi, an Istanbul broker: "Yilmaz did well to avoid populist measures like postponing the tax on bond revenues."

RETAIL INVESTORS CONFIDENCE MAY BE WANING, BUT NO PANIC

Money seen moving out of equities to cash funds

By John Authers in New York

US retail investors, whose immense confidence in equities is widely regarded as an important support for the bull market in recent years, appeared to be shifting money out of equities into cash funds yesterday, although there was no evidence of panic selling.

Several big retail fund management groups said they had seen steady switching from equities into cash for most of August.

Charles Schwab, the largest US retail broker, said it had been exceptionally busy on Monday, with 140,000 calls from investors to operators, and 350,000 automated telephone calls. At any one time, nearly 25,000 investors were using its web-site simultaneously, roughly double the normal volume.

In mutual funds, it reported that the "flight to cash out of mutual funds" which had been seen for several weeks, was continuing.

Fidelity Investments of Boston, the largest US fund manager, also reported heavy volumes of telephone calls from investors. It said: "As has been the case throughout the month, we saw investors choose to move money from equities to more conservative vehicles such as bonds and cash. However, the vast majority of our shareholders have chosen to sit still."

Philadelphia-based Vanguard, which has led mutual fund sales for the past two years, also reported heavy volume, although it said telephone calls remained below record levels, it had recorded. It said: "We don't have final numbers, but we think equity funds took in a net inflow on Monday."

It added that it had taken net inflows of cash for equity funds throughout last week, with its passive funds investing only in the S&P 500 index, and the total stock market index proving particularly popular.

However, suggestions by some arbitrageurs that mutual fund managers had had to sell equities on Monday afternoon because of redemptions by their investors appear to be inaccurate.

According to the Investment Company Institute, the Washington-based trade association for the industry, an average of 5.1 per cent of the assets of equity mutual funds was held in cash at the beginning of August. This is equivalent to a total of $144.1bn.

Several market analysts have expressed concern in recent years that modern mutual fund systems, which allow instantaneous transfers in and out of money funds over the telephone or the internet, would allow swift panic selling in the event of a market downturn.

WALL STREET A MORNING IN THE LIFE OF A TRADER

To market, to market, with baseball bat in hand

By William Lewis in New York

It was a bad start to a difficult day for Michael Clark, head of US stock trading at Credit Suisse First Boston, one of Wall Street's leading investment banks.

At 9am, half an hour before the opening of the market, he took a mouthful of banana and immediately spat it out. "That is a bad banana," he said and dumped it in the bin.

For a while it looked as if the rotten banana would provide an accurate guide to the stock market's performance in the day ahead.

To make things worse, on his speaker phone Mr Clark was told by an analyst of some news about a company CSFB trades shares in that was likely to hurt its share price when the market opened.

Grabbing the baseball bat he appears to keep by his desk at all times, Mr Clark lept to his feet and with his face scrunched up with angst went to swing it.

"I would like to knock that guy right out of this trading room," Mr Clark said, clearly sensing a hard day ahead. "We are not just going to go back and everything will be OK. This will force people back to fundamental investing."

And all this before the market had even started trading.

After Monday's 512.61-point fall in the Dow Mr Clark and his team had stayed to plan strategy for yesterday's trading session. Their view: the fall in the market had been necessary to reach a proper balance of buyers and sellers.

By 7.15am yesterday Mr Clark and his team were back at their desks, and by 9.15am the tension – and shouting – on the trading floor had reached a level comparable with just before kick-off at a soccer match.

By mid-morning, as the Dow was giving up most of the gains it had made in the first hour of trading, Mr Clark actually seemed to be enjoying himself.

By 11am as the Dow bounced back, the mood in the trading room began turning lighter. The shouting, however, did not stop. "Can you please let me know what is going onnnnnnnn," screeched one trader.

With a series of buy and sell trades, Mr Clark – one of the most respected traders on Wall Street – gave the impression of jousting with the market, testing the skills he has gained from years of market trading.

"This is about as difficult it gets right now," he said. "You have to do a bit here and a bit there, get yourself in the market to test where it is going."

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MARKETS IN TURMOIL

ARMS CONTROL

Two deals 'to make the world safer'

By Stephen Fidler in Moscow

In the midst of continuing crises in Moscow, the US announced two agreements with Russia that it claimed would make for a safer world. The Clinton administration is particularly anxious to demonstrate tangible success from the Moscow summit.

The two sides agreed in principle to convert 50 tonnes apiece of plutonium recovered from dismantled nuclear warheads into material unuseable for weapons. A second accord will mean the US and Russia sharing information on the launches of ballistic missiles and space rockets, reducing the danger of a false warning of attack.

The plutonium, enough to make thousands of weapons, would cover about half of the declared US plutonium stocks. Russian stocks are estimated at about 160 tonnes.

The two sides hope to complete the agreement, which follows one already in effect for enriched uranium, by the end of the year. The agreement, which will include provisions for international monitoring, envisages the plutonium either being used in nuclear power reactors or being mixed with radioactive waste and stored in a waste repository.

Among the details to be worked out is how the Russian side of the operation will be financed. It is hoped funding from other members of the Group of Eight industrialised countries will be forthcoming. US officials said Germany, Japan and France had expressed an interest in the programme.

The launch information-sharing agreement will, according to Robert Bell, special assistant to the president for national security affairs, extend an existing accord covering theatre nuclear weapons into the strategic arena.

The agreement "is especially relevant at a time when Russia's early warning system is under stress from budget difficulties, systems failures and the closure of early warning radars on the soil of nations outside Russia," Mr Bell said.

AID FOR RUSSIA CHINESE OFFICIALS REACT WITH CONCERN AS MOSCOW CONTINUES TO BE RIVEN WITH WRANGLES OVER POLICY

Beijing pledges $540m to help steady the rouble

By James Kynge in Beijing and John Thornhill in Moscow

China said yesterday it was pledging $540m to help stabilise the economic turmoil in Russia.

Zhu Bangzao, foreign ministry spokesman, said the money would be dispensed through the International Monetary Fund. But it was not clear if the funds would form part of a $22.6bn IMF package already outlined, or part of a new initiative.

This is the third time since the start of the Asian financial crisis last year that Beijing has promised aid through the IMF. Its pledges of $1bn to Thailand and $500m to Indonesia were applauded as a sign that Beijing was starting to shoulder some responsibility for regional economic stability.

The direct economic impact on China from the latest bout of Russia's financial crisis has been limited but has caused concern among Chinese officials. But Beijing has stuck to its promise not to devalue its own currency, the renminbi.

In the absence of an approved government in Moscow with a clear economic line, Russian financial markets continued to slide yesterday, as officials wrangled over policy.

Dmitry Vasiliev, head of the Federal Securities Commission, Russia's market regulator, attacked the central bank's recent policy of unilaterally declaring an official exchange rate for the rouble.

"The absence of a real exchange rate for the rouble creates a catastrophic situation," Mr Vasiliev said. "If you do not trade in the currency, people will panic and move into dollars."

On Monday, the central bank let the official rouble rate drop 15 per cent to 9.33 to the US dollar: it fell further to 10.88 yesterday. The average exchange rate on Moscow's electronic currency exchange, mainly used for inter-bank trades, fell to 11.21 yesterday. Unofficial prices for the US dollar have converged at about 10 in recent days. At present, the official exchange rate is largely symbolic and does not apply to most commercial transactions. But lack of an organised foreign exchange market is disrupting foreign trade transactions.

Sergei Dubinin, head of the central bank, has said currency trading would resume later this week on the Moscow Interbank Currency Exchange, where trading was suspended on August 26.

Peter Boone, economist at Brunswick Warburg, the Moscow-based investment bank, said the central bank should be able to hold the rouble at about current levels, provided it did not start printing money or issuing more credits.

He estimated the central bank had provided Rbs30bn ($2.7bn) of credits to the banking sector in recent weeks, equal to 20 per cent of base money, contributing to the rouble's sharp fall. "At that rate you get into very high inflation very quickly," he said.

Hillary Clinton is shown round a Moscow clothing factory at the start of her Russian visit yesterday Reuters

TREASURY BILLS MOUNTING LOSSES FOR FOREIGN INVESTORS

GKO decision delayed

By Jeremy Grant

Foreign investors locked into Russia's frozen treasury bill (GKO) market are nursing mounting losses as the political crisis in Moscow continues to delay the country's long-awaited restructuring scheme.

The plan, which forces local and foreign investors to swap short-term GKOs for longer-dated debt, was announced last month as a way of easing Russia's debt burden. But it has been delayed twice, causing frustration to investors already resigned to sustaining huge losses on their portfolios.

Bankers said yesterday that although the government released some details covering the timetable of the exchange last Friday, they were still waiting for final details of how it would work – contained in a so-called "term-sheet".

"Losses are accumulating on a daily basis. The longer it takes, the more people go under and some hedge funds may blow up. The question is whether we're getting close to the end," said Jerome Booth, head of markets research at ANZ Investment Bank.

Foreign investors account for about $17bn of the total GKO market of about $40bn; the rest is held by Russia's banks and the central bank.

Moscow has told them that they have three weeks in which to decide whether to convert their GKOs into new rouble-denominated bonds or a mixture of dollar and rouble paper.

Investors want to know more about which exchange rate will be used in the swap. They also want to know whether the debt can be traded. Moscow has indicated that it might restrict trading of the rouble paper. Investors fear such a move would lock them into the currency at a time when it is fast depreciating.

Bankers said that hedge funds – specialised investors that often take risky positions in markets – were suffering the most and were facing pressure to repay borrowings used to enter the GKO market.

"These people have leveraged their GKO exposure up to two to three times by borrowing on margin to pay for them. They are really hurting," said one banker.

G7 REACTION 'READY TO ACT WHEN IT MAKES SENSE'

Kohl calls for patience

By Peter Norman in Bonn

Any special reaction of the Group of Seven industrial nations or the European Union to the Russian crisis would have to wait until events had clarified in Moscow, Helmut Kohl, German chancellor, said yesterday.

"I'm always for such a meeting," he added, when asked about the possibility of a G7 summit, "but only when it would produce a result and not simply be a show". Similarly, the European Union was ready to act together "when it made sense to act".

There was no point raising expectations of financial support in Moscow only for these to be dashed. Meanwhile, the G7 and EU countries were in constant contact with each other.

"What could the G7 do? We don't know who will be prime minister in Moscow," Mr Kohl went on. The EU was preparing a response to the crisis but it would be pointless to approach Moscow this week while President Bill Clinton was there.

It would also be counter-productive for the EU to tell the Duma, the Russian parliament, what to do: "It would do the opposite," Mr Kohl said.

The chancellor told a press conference that all Germany and other western nations could do at present was to urge Moscow not go back to the past. He appealed for patience with Russia: "You can't expect that Russia's financial policy will fall into line with pure Harvard doctrines overnight".

Earlier this week, Keizo Obuchi, Japan's prime minister, suggested a G7 meeting to discuss the Russian crisis.

Tony Blair, UK prime minister and current chairman of G7, had phone conversations on Monday with Russia's President Boris Yeltsin and other G7 leaders. An aide said yesterday: "We are willing to help, but it has to be tied to economic reform."

EUROPEAN CENTRAL BANK MONETARY POLICY STRATEGY TO BE ANNOUNCED NEXT WEEK

ECB planning no action yet

By Wolfgang Münchau in Frankfurt

The governors of the European Central Bank met yesterday to discuss the international financial crisis, but concluded that no immediate policy action was necessary.

The central bank governors will hold another meeting on Friday next week, where they are expected to announce the ECB's future monetary policy strategy. The ECB said there would be a news conference after next week's meeting.

Alfons Verplaetse, the Belgian central bank governor, said the Russian situation had no impact on the ECB's monetary policy "at this point in time".

The political sensitivity of yesterday's meeting was underlined by the presence of Rudolf Edlinger, finance minister of Austria, current holder of the European Union's rotating presidency, and Yves Thibault de Silguy, the European monetary affairs commissioner.

Deutsche Bank, Europe's largest financial institution, is now considering changing its forecasts for of European interest rates.

The bank's economists believe it is likely that short-term European interest rates – currently at 3.3 per cent in Germany and France – will remain at that level until the end of 1999. The bank is currently predicting short-term interest rates rising to 3.5 per cent.

There is growing nervousness among Germany's financial establishment, which largely ignored international financial contagion until Russia's recent effective default and the devaluation of the rouble.

Peter Cornelius, a senior Deutsche Bank economist, said about 40 per cent of the world economy was either in recession or in the midst of an economic downturn – including the UK.

He said: "This creates an exceptionally difficult situation for the ECB. We predict that world economic growth will be only 2 per cent, and there is no way that Europe can decouple from world economic developments."

European central bankers still vividly remember the 1987 stock market crash, and the ensuing inflationary monetary policies in the US and the UK. They are keen to avoid overreacting by keeping interest rates excessively low for too long. But they also know that they have to perform a fine balancing act since they do not want to be blamed for a world economic downturn.

The Bundesbank still suffers from critics who blame the 1987 crash on comments by Helmut Schlesinger, then its deputy president.

HONG KONG EASING THE BURDEN FOR THE SMALLER BANKS

Monetary authority moves on interest rates

By Louise Lucas in Hong Kong and Peter Montagnon, Asia Editor, in London

The Hong Kong Monetary Authority (HKMA), the territory's *de facto* central bank, yesterday poured more funds into the money markets, pulling down interest rates and easing the financing burden for smaller banks.

Smaller banks, which often lack substantial deposit bases and have been faced with overnight borrowing costs of 20 per cent and higher in recent days, have suffered the biggest squeeze on margins. The prime lending rate is 10 per cent.

The sharp drop in interest rates, from around 16 per cent to around 5 per cent for overnight money, defied the dismal sentiment engulfing Hong Kong and Monday's steep fall on Wall Street. Fitch-IBCA, the international credit rating agency, cut its ratings of eight of the territory's banks.

These factors combined to push share prices lower. The government, which last month spent an estimated US$14bn buying blue chip stocks in a bid to thwart speculators, was not seen to be involved actively yesterday. The benchmark Hang Seng Index fell 2.92 per cent to 7,062.47.

Sentiment was also subdued by Standard & Poor's Hong Kong downgrading late on Monday, cutting its long-term foreign currency sovereign credit rating from A+ to A.

The government said yesterday the downgrading was unjustified. "As a responsible government we must take all necessary steps to protect the stability and integrity of our currency and financial markets when they are under speculative attack."

The government also alluded to Standard & Poor's acknowledgement of its banks' high capital ratios. Confidence in the banking sector is seen as critical, and embryonic concerns have already been flagged by some retail depositors switching their savings to the bigger banks.

Fitch's downgradings, coupled with yesterday's rapid drop in overnight lending rates, underline those concerns. Fitch has cut the individual rating – which measures internal financial strength – at six of the smaller banks from B to B/C.

Despite this, the banking sector has shown itself resilient in the face of the Asian crisis with all local banks remaining profitable in the first half of this year, David Carse, deputy chief executive of the territory's Monetary Authority said yesterday. "We believe the banks are basically safe and sound," he said. "They've stood up to 10 months of extreme pressure, and they have the cushion to stand up to further pressure to come."

Profits had fallen by on average 25 to 30 per cent, said Mr Carse, who is responsible for bank supervision, but arrears on mortgages were still "tiny" at 0.29 per cent of total lending even though residential property prices had fallen by some 50 per cent.

Mr Carse acknowledged that deposits were now barely growing – rising by only 1.6 per cent in the first half. This was causing banks to compete for deposits in order to maintain their liquidity and loan to deposit ratios.

By supplying liquidity to selected smaller banks, dealers said, the HKMA was seeking to ease the pressure on their margins. Dealers measured the HKMA's role by the massive settlement level at noon, which was more than double the level usually seen at that time.

GOVERNMENT INTERVENTION SIGNS OF WEARINESS WITH FREE MARKETS

Temptations of controlling capital

By Louise Lucas and Peter Montagnon

Malaysia's decision to impose controls on short-term capital movements may signal a new twist in governments' thinking about Asia's economic crisis. It comes as Hong Kong has also tried to buck the trend by intervening in the local equity market.

In both cases the decisions signal a weariness with the orthodox approach of allowing market forces to prevail on every occasion. For some governments the attraction of combining capital controls with greater freedom over domestic monetary policy must be considerable.

Two countries which have been spared the worst of the turbulence – China and India – both have restrictions on the capital account of their balance of payments.

Whether other governments conclude that capital controls that protect the exchange rate would provide cover for the relaxation of monetary policy remains to be seen. Most know they will need long-term inflows in the form of foreign direct investment.

In Indonesia, for instance the International Monetary Fund continues to recommend tight money as a way of holding up the exchange rate in order to regain the confidence of long-term investors. Many investors might look askance at the prospect of short-term capital controls in a country so notoriously vulnerable to corruption.

Malaysia's decision is "raising the risk premium another notch for those considering investing in Asia," according to one Asia-Pacific strategist.

The international capital flows that, just two years ago, were lured by Asia's buoyant economic growth – which foreign money in turn helped fuel – are now much less than they were. In 1996, annual cash flows to Asia-Pacific (excluding Japan) mutual funds alone totalled $2.96bn, according to Salomon Smith Barney. Last year that became a $3.21bn outflow. This year so far the outflow is $383m.

'It's a very, very dark day for Malaysia and Asian equities'

By imposing exchange controls in Malaysia, Mahathir Mohamad, has at one stroke made the outlook still blacker, according to Paul Schulte, regional strategist (Asia) at ING Barings. "It's a very, very dark day for Malaysia and Asian equities," he adds.

Thailand, Indonesia and Hong Kong still do not have capital controls. Thailand yesterday said it was unnecessary for it to follow Malaysia given the absence of speculation on the baht offshore. It will, however, still feel the impact of Malaysia's move, as will its neighbours: whether through the impact on tourism or, in the case of Singapore, through banks which have exposure to the ringgit.

The biggest effect could come from a mass drying up of capital inflows. Nerves had already been rattled by Hong Kong's intervention in the stock market – an economy perceived to embrace free market principles shoring up share prices to thwart speculators – and Malaysia's action has caused many to revisit their intentions.

"It creates more question marks over the intentions of the Hong Kong Monetary Authority," says Mr Schulte. "We are living in a land of unprecedented behaviour and trends."

Mr Schulte, and others, believe Malaysia could have been encouraged by the HKMA's actions. What is less likely is that Hong Kong will ape Malaysia, although there are lingering doubts: the territory is not in full control of its markets and it is suffering from the high level of interest rates.

The HKMA itself insists its intervention was merely to restore stability and does not suggest any straying from the path of "positive non-interventionism". Instead, the government used its substantial reserves to frustrate the speculators.

But not all see the HKMA's role in quite such a benign light – particularly not the hedge funds and big international investment banks which have been broking their positions. These investors have been wounded in ways the HKMA may not have counted on, and Malaysia yesterday rammed the point home.

MALAYSIA MEASURES ROLL BACK YEARS OF LIBERALISATION

Mahathir declares markets have failed

By Sheila McNulty in Kuala Lumpur

Mahathir at a press conference in Kuala Lumpur yesterday with his slogan 'Malaysia Boleh' – 'Malaysia Can' AP

Mahathir Mohamad, the Malaysian prime minister, yesterday struck back against the global financial markets he has railed against for the past year. The measures were extraordinary even by Dr Mahathir's own remarkable standards.

"The free market system has failed and failed disastrously," he said in a television interview. "The only way that we can manage the economy is to insulate us ... from speculators".

The measures, which effectively pull the ringgit out of international circulation and give the authorities absolute control over the economy, roll back years of liberalisation and mark an end to Malaysia's ambitions to become a regional financial centre.

Since the crisis began in July last year, the ringgit has been pushed down by as much as 46 per cent and the benchmark stock index down more than 70 per cent from its peak.

Bank Negara, the central bank, said the package of measures is designed to force the repatriation of billions of ringgit kept offshore within a month, after which holdings outside the country will be illegal. All trade must be conducted in foreign currency, travellers may only enter or leave with up to M$1,000 (US$238) cash and foreigners selling shares cannot repatriate their funds for one year.

Dr Mahathir made it clear that the economy would be revived, even if it meant revising the standards by which it is measured. Malaysia could change the point at which a loan becomes non-performing from three to six or even nine months. And it could revalue its companies according to its own standards, not global ones.

Dr Mahathir now has an unprecedented opportunity to address a problem at the heart of the economic malaise: the banking system's massive debt. The authorities can loosen monetary policy by lowering interest rates without worrying that funds will flow offshore. With the repatriation of ringgit, banks will have enough fresh deposits to revive lending and generate growth.

The free market consistently blocked his efforts

Malaysia's banks went into the regional financial crisis with a domestic credit to gross domestic product ratio of about 170 per cent, the highest in south-east Asia.

Economists predict that close to one-third of the loans will go unpaid. Banks have virtually stopped extending credit, fearing they will only add to bad loans, and the economy has moved swiftly into recession.

But not all economists believe that banks will revive lending and spur business growth. Analysts suspect they will convert their offshore deposits into foreign currency and stay out. They expect smuggling will evolve and a trade will build around subverting the rules.

But, said Neil Saker, head of economic research at SG Securities, if it works the package could generate as much as 5 per cent growth next year, though it will be below-quality and unsustainable. Malaysia hopes to get by until foreign investment returns to the region, but Mr Saker said it would probably go to other countries first.

The prime minister said he took full responsibility for the measures, saying the free market system consistently blocked his efforts. When Malaysia wanted to raise funds in global capital markets, he said, international rating agencies downgraded the country close to junk bond status, making capital too expensive.

"As long as they can fiddle around ... we cannot do much," he said. "What we have done is to negate their ability to interfere."

That ironically may now be accelerated. Song Seng Wun, regional economist at G.K. Goh Research, said Malaysia would be stripped out of Asian portfolios and of equity indexes: "It will not be on anybody's radar screen."

Ozawa hits at bank rescue plan

By Michiyo Nakamoto and Gillian Tett in Tokyo

Ozawa: 'politically impossible'

Japan's proposal to rescue the Long-Term Credit Bank of Japan (LTCB) with an injection of public funds is no longer a political option, a leading member of the opposition warned yesterday.

Ichiro Ozawa, leader of the Liberal party, said the ruling Liberal Democratic party's decision to inject more than Y500bn ($3.5bn) of taxpayers' money to boost LTCB's capital base and support its merger with Sumitomo Trust was "politically impossible".

The government has the legal means to force through its plans. But it faces growing criticism of the plan and is under pressure – amid media reports that LTCB has transferred some of its problem loans to paper companies, and because of a general lack of transparency as to the exact situation at LTCB. "I don't think that they can take a political decision to force through the rescue under those circumstances," Mr Ozawa said.

His comments highlight the difficulty the government faces in pushing through its plans to bail out LTCB. Its success could be critical to ensuring short-term stability in Japan's financial markets, which have been rocked by concerns over a possible collapse of LTCB and political deadlock over the passage of key financial reform bills.

Separately, Takeshi Imai, head of the powerful Keidanren business group, yesterday appealed for an end to the political deadlock and warned that the stalemate risked exacerbating the economic downturn.

He said it was important for a compromise to be hammered out before the prime minister, Keizo Obuchi, meets Bill Clinton, the US president, later this month.

In nervous trading yesterday, the yield on 10-year benchmark bonds briefly dipped below 1 per cent to touch 0.995 per cent for the first time anywhere, before rebounding to 1.08 per cent. The Nikkei average, the key stock market indicator, fell 3 per cent to a new 12-year low before recovering to close up 1.86 per cent on the day.

Meanwhile, Fitch IBCA, a credit-rating agency, expressed concerns about Japan's long-term economic prospects by issuing a warning that its AAA long-term foreign currency and local currency ratings could be lowered due to the deteriorating health of banks and a gloomy economic outlook.

The Liberal Democratic party's plan for LTCB involves using part of a fiscal stabilisation fund earmarked to recapitalise Japanese banks.

But the opposition is, in principle, opposed to injecting public funds to rescue ailing banks. A three-party opposition alliance is putting together a bill that calls for abolishing the fiscal stabilisation fund. The opposition alliance is also opposed to the LDP's fiscal reform bills, including a proposal for a bridge bank to take over the healthy borrowers of a failed bank, and is presenting alternative proposals.

THREE-YEAR BATTLE BUREAUCRATIC DELAY AND AVIATION MINISTRY OBSTRUCTION BLAMED

Tata drops plans for airline

By Krishna Guha in New Delhi

India's Tata group yesterday announced it was withdrawing its proposal to launch a domestic airline, blaming three years of bureaucratic delays and obstruction from the ministry of civil aviation. The move follows an earlier decision by Tata Industries to shelve plans to build an airport at Bangalore, which also faced delays.

The company denied claims that its decision was a ploy designed to put pressure on the government to clear its plans. "We have lost our patience," said a Tata executive.

"It is over three years since Tata Industries first applied to the ministry of civil aviation for a domestic airline," the company said. "The applications were in compliance with all known policies and practices. Despite this the Tata proposal... remained on paper due to the inability of four successive governments to implement their own policies."

Public opposition to the plan has been led by MPs and aviation ministry bureaucrats who say it would harm state-owned Indian Airlines. However, Tata executives claim they are the victims of lobbying by Jet Airways, India's biggest private airline.

Tata Industries first applied to set up an airline in February 1995 in a joint venture with Singapore Airlines, following the government's decision to open the domestic market to private competition, with foreign shareholders holding a stake of up to 40 per cent.

Its latest modified proposal to invest Rs7bn ($165m) was cleared by the investment board in January. Following the election of a new government led by the Bharatiya Janata party (BJP), the new minister of aviation, Ananth Kumar, has repeatedly refused to issue a "no-objection certificate" to clear the project.

● India's disinvestment commission has formally advised the government to reduce its holding in Air India to 40 per cent and find a strategic partner for the troubled national carrier.

In a report to the finance ministry the commission warns that if no action is taken, Air India could go bankrupt within the next two years. It has debts worth more than four times its equity and a heavy interest burden. Last year it made a loss of Rs3.9bn.

The commission said the airline also needed to expand and upgrade its small fleet – 26 aircraft with an average age of more than 12 years. At present Air India is able to use fewer than half the landing slots available to it under bilateral aviation agreements.

N Korea stirs region's worst nightmares

Missile test was aimed at winning concessions, but has prompted an outcry

North Korea is known for its tough diplomatic bargaining, but its latest attempt to press the US to offer concessions by launching a medium-range ballistic missile over Japan could well backfire.

The global outcry over the missile test could jeopardise what North Korea has sought to achieve with its display of military prowess – more rewards for its agreement with the US in 1994 to freeze a suspected nuclear weapons programme by shutting down its reactors.

The angry reactions from Japan and the US could instead unravel the agreement, which would plunge north-east Asia into a new nuclear crisis and raise the risks of full-scale war. "North Korea has the tendency of being tactically clever, but strategically stupid in its negotiations," said a US official in Seoul.

Although Pyongyang has broadly adhered to the nuclear agreement's terms, it is complaining that Washington has failed to fulfil its side of the bargain. Promised deliveries of heavy oil fuel have been delayed, while the US has not eased economic sanctions or upgraded diplomatic relations as suggested in the accord.

With its economy collapsing, Pyongyang has resorted to hardball tactics.

Last month, it admitted it was selling missile technology abroad, believed to be the Middle East. Playing on US fears of missile proliferation, it issued an unsubtle message. "If the US really wants to prevent our missile export, it should lift the economic embargo."

Instead, the US and Japan are threatening to renege on two key components of the nuclear agreement. Hours after the missile test, Japan refused to sign a cost-sharing deal to finance two light-water reactors, which have no military use, promised to North Korea under the accord. Yesterday a cabinet meeting in Tokyo decided to postpone discussions on the project indefinitely. Tokyo had earlier pledged $1bn for the $4.6bn project.

The missile test has hardened opposition in the US Congress to the approval of $30m for the delivery of fuel oil to North Korea as an energy alternative to its mothballed reactors. Pyongyang has threatened to restart its nuclear weapons programme if the fuel is not supplied on schedule by October 21.

But the question remains whether Washington and Tokyo are prepared to scrap the nuclear agreement at the risk of war?

Tokyo is under domestic pressure not to yield from a public that already regards North Korea as a pariah state that poses the greatest threat to national security. Public shock and disbelief in Japan have turned to anger.

Yoshiro Mori, secretary-general of the ruling Liberal Democratic party said "if the firing was intentional, it's quite fair to say a war could have broken out. It is nothing other than a breach of trust."

The missile launch has shown that the entire Japanese archipelago – including US military bases – is within the range of North Korea's more advanced missiles and that "Japan has no defence against a missile attack," says Masao Okonogi, Keio University professor and expert on Korean affairs.

President Bill Clinton will have a hard time challenging Congress on its opposition to aid for North Korea.

"We have been told: 'Don't worry, now that we're helping them, the North Koreans have frozen their weapons, their nuclear activities'," complained Trent Lott, Senate majority leader. "And then we find out that perhaps they are doing this underground nuclear facility, now they fire a missile across Japan territory."

William Taylor, senior vice-president for International Security Affairs at the Centre for Strategic and International Studies, said that the US was unlikely to take a tough line. "This administration doesn't have a clue what to do concerning North Korea," he said.

Nonetheless, there were calls for calm elsewhere in the region. South Korea, which is pursuing a "sunshine" policy of economic co-operation with North Korea, said it would not stop moves toward reconciliation.

China, North Korea's closest ally, called on "relevant sides" to begin negotiations that would ease tensions.

Reports by John Burton in Seoul, Mark Suzman in Washington and Michiyo Nakamoto in Tokyo

NEWS DIGEST

FEAR OF FURTHER LABOUR UNREST

Hyundai Motor workers reject strike deal

Hyundai Motor, South Korea's largest carmaker, yesterday was threatened with renewed labour unrest after workers spurned a deal that ended a month-long strike last week. Almost two-thirds of the workforce rejected a compromise agreement to sack 277 employees instead of the nearly 1,600 workers initially proposed by Hyundai. The vote reflected protests that the Hyundai union had accepted the principle of mass redundancies, although they were small in number.

The Hyundai dispute had been considered a test case of the ability of companies to sack workers after recent laws ended lifetime employment guarantees. The rejection of the deal represents a setback to the government, which intervened to force a compromise and prevented the strike ending in bloody confrontation between workers and riot police.

The government was later criticised for favouring union demands and giving concessions that will make it harder for corporate restructuring as Korea confronts its worst economic crisis since the 1950s. **John Burton, Seoul**

PHILIPPINE RULING

Subic Bay chief removed

Joseph "Erap" Estrada, new president of the Philippines, appears to have won a fight for control over the country's flagship industrial development at Subic Bay, the former US military base. The Supreme Court of Philippines yesterday rejected an appeal against the controversial decision by Mr Estrada to sack a political foe, Richard Gordon, as chairman of the Subic Bay Management Authority. The move in effect quashed a high-profile campaign by Mr Gordon, who had overseen the transformation of Subic Bay after the departure of the US military in 1991, to retain his position.

Mr Gordon said he would abide by the Supreme Court decision and discuss a smooth transition of the "functions" of the SBMA with Felicito Payumo, who has been appointed as chairman of the authority by Mr Estrada.

Mr Estrada said he was "very glad" with the Supreme Court decision and hoped Subic Bay could now "return to normal". **Tony Tassell, Manila**

INDIAN TRADE

Devaluation boost to exports

India said yesterday exports in July were 7.71 per cent higher in dollar terms than in the same month of last year, suggesting the recent rupee depreciation is slowly boosting previously sluggish trade.

The Indian rupee, which was thought by many economists to be over-valued last year, has fallen in value by 20 per cent since last July. Much of that drop has come in the wake of India's May 11 nuclear tests, with the rupee falling about 8 per cent since the blasts.

The spurt in growth – India's July exports reached $2.98bn, compared to $2.77bn in July last year – follows several months of stagnant exports. The value of Indian exports between April and July of this year, however, fell 3.37 per cent, to $10.6bn, from $11bn during the same period last year. **Amy Louise Kazmin, New Delhi**

BELL HELICOPTER AGREEMENT

Romania in bid to alter deal terms

By Stefan Wagstyl and Virginia Marsh in Bucharest

Romania is trying to renegotiate the terms of a $1.5bn deal with Bell Helicopter of the US to buy and produce military helicopters following strong domestic and international criticism.

President Emil Constantinescu told the Financial Times yesterday that the much delayed agreement remained in Romania's long-term strategic interest because it would help build the country's high-technology industry.

"There is discussion on a single aspect – namely having a more favourable financial arrangement for this contract," he said.

His comments come amid a fierce debate over the deal, with Daniel Daianu, the finance minister, threatening to resign if the contract goes ahead on present terms.

Under the deal, Bell, a subsidiary of Textron, would acquire a controlling stake in IAR, a loss-making state-owned Romanian aviation plant, for $50m, modernise the works and produce attack helicopters for the Romanian military.

Romania would buy 96 helicopters and hope to manufacture more for export. General Electric of the US is also considering investing in Turbomecanica, a Bucharest-based engineering works, to make engines for the helicopters.

Romania considers that bringing two large US industrial companies into the country would boost flagging efforts to encourage foreign investment, preserve jobs and help cement economic and military ties with the US.

Bucharest last year failed to secure early membership of Nato but still hopes to gain entry early next century. The deal was first discussed more than two years ago and a preliminary agreement signed in the spring of last year.

But the contract came under attack last summer from the International Monetary Fund and the World Bank, which are both involved in talks with Bucharest on new loans.

The agencies argue the cash-starved government can ill afford the deal which, with interest payments, would cost $2bn. The government responded by asking investment banks to re-examine the deal's finances.

The banks suggested a scheme under which the finance ministry would periodically issue bonds over the lifetime of the 20-year contract to spread the cost.

Bell thought the deal was secured after the cabinet approved this financing arrangement in July, but Mr Daianu last month launched a last-ditch attack which has since drawn support from some other ministers.

The contract's opponents point out that with gross domestic product declining last year by nearly 7 per cent and a forecast GDP decline of 4 per cent this year, Romania must cut rather than increase government spending.

Ministers are in the midst of talks over emergency spending cuts in the 1998 budget. However, other ministers argue that the deal should be done if the terms can be renegotiated.

Possible options include buying slightly fewer helicopters or securing early export orders.

Neculai Banea, general manager of the IAR plant near the industrial city of Brasov in Transylvania, said in an interview the contract was vital to the company's future. As well as investing in military production, Bell had also undertaken to invest $21m in the plant's civil aviation business.

Ottawa faces claim over PCB waste ban

By Scott Morrison and Edward Alden in Toronto

A US company specialising in the clean-up of hazardous wastes is seeking C$10m (US$6.3m) in compensation from the Canadian government over Ottawa's ban on the export of polychlorinated biphenyls (PCB) waste.

The claim, filed under the investor-state arbitration provisions of the North American Free Trade Agreement (Nafta), charges that Canada's 1995 ban amounted to an expropriation of the business of S.D. Myers, an Ohio-based company.

The case is the second in as many months to raise fears that Canada's ability to uphold its environmental laws has been curtailed by Nafta investment protection provisions.

Nafta allows a foreign corporation to request compensation through binding arbitration if a government directly or indirectly expropriates the company's investment in that country.

Last month Ottawa agreed to settle the first case brought by Ethyl, the US manufacturer of a methanol-based gasoline additive. Ethyl had claimed Ottawa's ban on the import of the additive, known as MMT, had resulted in a loss of business in Canada, and it sued for US$250m in compensation. The federal government agreed to pay US$13m in compensation and rescinded the import ban.

In its claim made public this week, S.D. Myers alleges that a 1995 ban on exports of PCBs, a highly toxic coolant used in electricity transformers, prohibited it from conducting business in Canada and benefited its Canadian competitors. The company says the ban violated four Nafta articles, including provisions on national treatment, performance requirements and expropriation.

The export ban was lifted in early 1997, when the government says it was reassured the PCBs were being handled safely in the US, but S.D. Myers wants compensation for business lost during those 15 months. If the two sides cannot negotiate a settlement by October, the company can ask for a Nafta arbitration panel.

Critics of Nafta's investor-state arbitration provision say the two cases highlight the risks to governments which will soon resume negotiations to forge a Multilateral Agreement on Investment (MAI), a 29-nation OECD accord that would include similar provisions.

Andrew Chisholm, a policy analyst with the Sierra Club, an environmental group, said almost any environmental legislation could be challenged if it were viewed as expropriation or denial of profit.

A Canadian official, however, denied that Nafta puts at risk the federal government's ability to uphold environmental legislation. The official maintained the Nafta measures were sound and did not need further clarification for the MAI.

Trade tensions send southern Africa regional link-up reeling

SADC has been slow to translate economic rhetoric into any sort of reality, report Tony Hawkins and Michael Holman

War in the Congo is sending shock waves across southern Africa. And one of the casualties is an institution that should have helped prevent it.

Nearly 18 years after its launch, the Southern African Development Community (SADC) is floundering, its leaders are at loggerheads, their economies are in difficulties, and their plans for regional security are in disarray.

Not for the first time, the Community's weaknesses are being exposed as Robert Mugabe and Nelson Mandela lock horns over how to respond to the crisis in the Congo. But while it is a battle which may owe much to a clash of personalities, part of the explanation lies in strained relations over trade issues which SADC should have helped resolve.

Launched in Lusaka, Zambia, in 1980, its original objectives were two-fold: to reduce trade with apartheid South Africa, and to co-ordinate donor aid.

By 1985, Community leaders had to concede that trade with Pretoria had increased, partly because the ports and railways in Mozambique – focus of over $1bn of donor aid – were also the targets of Pretoria's destabilising war against its neighbours.

The collapse of apartheid and the 1994 poll triumph of Mr Mandela paved the way for Pretoria's membership. It should have given the Community a boost, while allowing it to take on a role as the region's policeman. Instead, resentment of "big brother" has soured relations and its peacekeeping potential has collapsed.

South African dominance – it accounts for almost three-quarters of the $127bn regional market – has left SADC with the image not so much of an economic union, as a bunch of satellite states clustered around a regional economic superpower.

Until South Africa joined in 1994, trade within the Community represented a mere 2.6 per cent of regional exports. South Africa's accession led to a sharp increase to 14.5 per cent of the total by 1995, the bulk of this being South Africa's exports to its SADC neighbours, with 86 per cent of intra-regional imports supplied by South Africa.

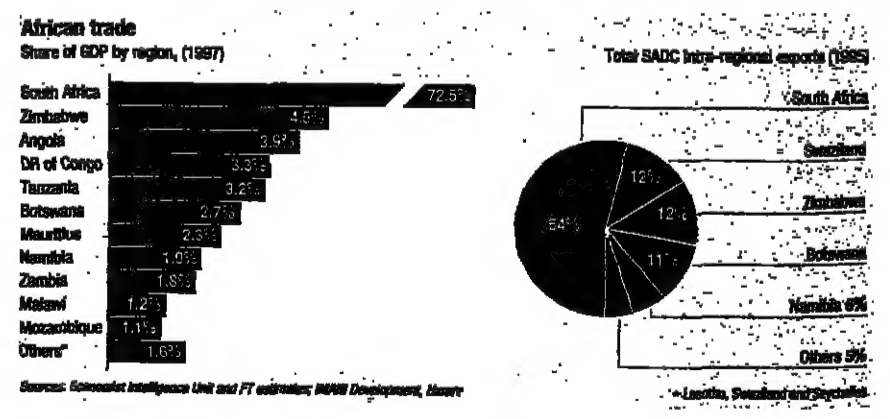
South Africa's neighbours, particularly Zimbabwe and Zambia, criticise its trade and industrial policies, citing what they see as Pretoria's reluctance to open up its own market while aggressively penetrating theirs. Between 1990 and 1997, for example, South Africa's share of Zimbabwe's imports virtually doubled from 19 per cent to 37 per cent.

More recently, Pretoria's negotiations for a free trade area with the European Union have led to fears that South Africa could become the platform for EU-based multinationals to take over SADC and East and Central African markets, restricting their economies to the production and export of raw materials.

But blaming the big boy on the block cannot obscure the fact that SADC has been slow to translate the rhetoric of economic integration into any sort of reality.

Part of the problem has been the divided loyalties of the member states. Five, including South Africa, belong to the closest-knit regional economic union on the continent: the Southern African Customs Union (Sacu) of which Botswana, Lesotho, Namibia and Swaziland are members.

Tanzania is a member of the revived East African Co-operation group with Kenya and Uganda, while Angola, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Tanzania, Zambia and Zimbabwe belong to a rival economic union: the Common Market for Eastern and Southern Africa (Comesa).



Arguably, the five Sacu states have less to gain from a regional trade pact embracing all 14 SADC states, and stand to benefit more from an EU-South Africa free trade agreement.

Others, notably Zimbabwe and more recently Zambia, have negotiated bilateral trade deals with South Africa, while committing themselves to a SADC regional free trade protocol due to be phased in over an eight-year period.

Forging an economic union among countries so disparate in size and at such different levels of economic development is a formidable enough task, worsened by the determination of some leaders, notably Zimbabwe's President Mugabe, to promote SADC as a political entity as well as an economic union.

The Congo crisis threatens to derail economic recovery in a region where per capita gross domestic product has fallen from $900 (at 1987 prices) in 1980 to an estimated $725 in 1996.

Except for South Africa, every country now embroiled in the crisis desperately needs substantial foreign aid from the donor community along with loans from the Bretton Woods institutions.

The governments of Angola, Namibia, Rwanda, Uganda and Zimbabwe know that their military involvement in the Congo, should it last beyond a few weeks, will seriously damage their economies while closing the door on foreign aid and foreign investment.

Zimbabwe's decision to send troops to a conflict not directly threatening its interests could put paid to its hopes of raising more than $1bn at a donor conference next month to finance land resettlement.

Also in doubt must be the disbursement of the next tranche of its $175m IMF standby loan. Angola's hopes of raising IMF finance have also been put at risk, while Zambia's stalled copper mine privatisation programme is another likely casualty of a conflict whose consequences will be felt for years to come.

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NEWS DIGEST

FEAR OF FURTHER LABOUR UNREST

Hyundai Motor workers reject strike deal

PHILIPPINE RULING

Subic Bay chief removed

INDIAN TRADE

Devaluation boost to exports

CB waste ba

Angola lurches closer to full resumption of war

By Nicholas Shaxson

Angola yesterday lurched closer to a full resumption of civil war by excluding the former rebel movement Unita from parliament and government in Luanda.

Jose Eduardo dos Santos, Angola's president, flew to an international conference in Durban, South Africa, where he expects to meet Kofi Annan, United Nations secretary-general, and try to find a way to salvage Angola's crumbling 1994 Lusaka peace agreement.

The suspension follows a Unita declaration last week in which it said it had stopped co-operating with Portugal, Russia and the US, the so-called "troika" of countries monitoring the UN-brokered accords.

Serious fighting has continued in the north and Angola's state-owned newspaper, Jornal de Angola, reported yesterday Unita had attacked the north-eastern diamond-mining town of Luremo. Unita now controls all of the northern province of Malange, except for three towns. Diplomats in Luanda said the newspaper report would, if true, mark the first big battle this year inside the strategically vital diamond-rich Lunda Norte province.

Unita still has between 10,000 and 15,000 well motivated armed troops and since May has been retaking areas it had officially handed over to the government under the terms of the Lusaka agreement.

But the peace process is still alive, in theory, and officials in Luanda said a new war could still be avoided. The suspension of Unita from parliament is theoretically reversible and Unita said in its August 24 declaration that it was still committed to the Lusaka accords. "Looking at what has been happening, you could say Lusaka has been dead for a long time," one diplomat said. "But in practice, we have not yet reached the end of the peace process."

Thousands of Angolan troops are fighting in Democratic Republic of Congo alongside the forces of President Laurent Kabila, who is battling a Rwandan-backed rebellion in the east, as Luanda battles to plug holes in a carefully constructed regional strategy to clamp down on flows of supplies and weapons to Unita across its porous borders.

This strategy has added to successive layers of UN sanctions against the rebel movement which, although leaky, have made it more expensive for Jonas Savimbi, Unita's leader, to supply his forces.

Mr Savimbi hopes he can exploit the turmoil to expand his supply lines, although a diplomat said it was not yet clear exactly how much he would benefit.

Once backed by the US and South Africa during the cold war against the Marxist-Leninist MPLA in Luanda, Mr Savimbi now has almost no foreign backers, except those he can persuade to sell him arms in exchange for diamonds. If the government holds on to its main diamond mines, Mr Savimbi is not expected to mine much more than $100m worth of diamonds this year after producing about $500m last year. Current output is also tiny in comparison with government revenues from 750,000 b/d of oil exports.

Despite the scattered fighting observers said they had not yet seen what many have predicted: an attack by the Angolan Armed Forces (FAA) on Mr Savimbi's main stronghold around the central highlands towns of Andulo and Bailundo.

But when Mr dos Santos meets Mr Annan he is likely to ask for some form of international mandate to launch such an offensive. "The government is very interested in the idea of a UN ultimatum," said an official closely monitoring the peace process. "For example, it could say that if Unita does not comply by a certain date the government will be authorised to pursue full compliance, using force if necessary."

If this happened it would almost certainly finish what is left of the Lusaka accords and prompt a withdrawal of the remaining 400 UN peacekeepers, who have already pulled back from forward observation posts because of military insecurity. Their mandate expires on September 15. A new UN special representative to Angola, Issa Diallo, arrived in Luanda last week to replace Alioune Blondin Beye, who died in an air crash in June.

"I think the new special representative will at least be given the chance to try to and get the process back on track," a diplomat in Luanda said. "But although we have been waiting for a major attack for months now, we are running out of options to prevent it."

Corruption trial puts Belgium's political system in the dock

The start today of the Agusta-Dassault court hearing has deep resonances for many Belgians. **Neil Buckley** sets the scene

A former Nato secretary-general and the head of one of France's biggest defence groups go on trial in Brussels today in a multi-million dollar corruption case whose revelations could further undermine the shaky Belgian political establishment.

Willy Claes, the former Nato chief and Belgian deputy prime minister, and Serge Dassault, head of Dassault Aviation, are among 12 defendants in the so-called Agusta-Dassault case, labelled the biggest corruption trial in Belgium's 168-year-history.

Alongside them are another former Belgian deputy premier, and two other former ministers, plus former lawyers and officials of the Socialist parties in both Belgium's French- and Dutch-speaking regions.

The defendants would have numbered 13, but for the death from a heart attack in Rome 11 days ago of Raffaello Teti, former chief executive of Agusta, the Italian helicopter maker.

The case centres on allegations that Dassault and Agusta were awarded government defence contracts in the late 1980s in return for paying bribes worth several million dollars to the two party wings.

But the trial has deeper resonances. Many Belgians see the sight of several former senior politicians in the dock as further evidence that their political system is shot through with corruption.

Confidence in public institutions is already at an all-time low after the mishandling of a paedophile murder scandal over the past two years. This culminated in the brief escape in May of the man at its centre, Marc Dutroux.

The trial could produce further damaging revelations for the ruling Socialist-Christian Socialist coalition, as it prepares for a general election next June.

Already, two defendants claimed last week to have received an offer indirectly from Socialist leaders that they would have their legal costs paid provided they did not "lay into" the party.

"The fact that former party presidents, ministers, and a secretary-general of Nato are on trial will be seen as a symptom of the 'Belgian illness'," says Kris Deschouwer, professor of politics at the Free University of Brussels. "It will not be nice to watch. A lot of dirt will come to light."

The sense of pervasive corruption is reinforced by the way the bribery cases were discovered. Investigations into the still unsolved shooting of André Cools, another former Socialist deputy premier, in 1991, turned up evidence of payments of BFr51m ($1.4m) by Agusta to the Socialists.

Willy Claes, as Nato secretary-general, pleads for fairness from reporters over bribery charges back in 1995 AP

The payments were made around the time Agusta unexpectedly won a BFr12bn contract to supply 46 helicopters to the Belgian army.

Examination of the Swiss accounts of a Panama-registered front company involved in the Agusta payments in turn uncovered gifts to the Socialists from Dassault. The French defence group won a BFr6.4bn contract in 1989 to upgrade Belgium's fleet of F-16 fighter aircraft by fitting them with Carapace anti-radar systems.

The resulting scandal has several times burst out of the confines of Belgium.

Mr Claes, Belgian economics minister and a senior Flemish Socialist when the Agusta contract was awarded, was forced to resign from his Nato post after only 13 months in 1995 – vigorously protesting his innocence – as the allegations mounted against him.

The Belgian investigation led to a probe of financing links between Agusta and the now-defunct Italian Socialist party, and the arrest of Roberto D'Alessandro, Mr Teti's successor as Agusta chief executive.

Mr Teti, who retired to Rio de Janeiro in 1989, spent months in a Brazilian jail before being extradited to Belgium in 1996.

Corporate gifts to Belgian political parties were legal before 1989, provided they were not given in return for favours. The task for the 15 magistrates of Belgium's Supreme Court – which normally hears only appeals but is judging this case since it concerns former ministers – is therefore to determine whether the payments really were bribes, and how much the defendants knew.

All the defendants deny wrongdoing, and none is accused of benefiting personally from the payments.

The latter fact heightens the sense that it is as much the 1980s Belgian political system on trial as the individuals themselves. Prof Deshouwer says the Socialist parties were simply unlucky to get caught.

"It happens to be these two parties" on trial, he says. "But it was an absolutely normal system that firms would pay in return for projects in Belgium. There was a very thin line between legal and illegal contributions."

He adds that the law has already been overhauled, making such payments a thing of the past. Corporate donations are outlawed, with political parties now publicly funded.

In that sense, he adds, the trial really is of the Belgian political system of yesterday, not today. Many ordinary Belgians may not so clearly discern the difference.

Khartoum to probe ownership of factory targeted by US

By Mark Huband in Cairo

Sudan's government is to investigate the ownership of a pharmaceutical factory in the capital which was destroyed in a US missile attack on August 20 amid US allegations that chemical weapons were being manufactured on the site.

Sudan has denied US government claims that the al-Shifa factory is linked to Osama bin Laden, the Saudi Arabian dissident whose headquarters in Afghanistan was attacked at the same time as the Khartoum strike. Mr bin Laden, who has launched a violent campaign to force a US military withdrawal from Saudi Arabia, lived in Khartoum until the government asked him to leave in 1996.

Omar Hassan al-Bashir, Sudan's president, said yesterday he had formed a committee to establish the identity of the factory's owner. According to the Sudanese newspaper Al-Jumhouria, the committee will be headed by a senior judge with the aim of investigating "the ownership of al-Shifa pharmaceutical factory, how it was set up and financed and how its ownership passed to the current owners".

The inquiry comes a week after President al-Bashir stated at a press conference that "Osama bin Laden has no shares in this factory". Sudanese officials have made it clear who they believe the owner to be, but remain keen to exploit the apparent paucity of US evidence to justify the attack by adopting a transparent approach towards the issue.

The government's inquiry follows what amounts to a refusal by the United Nations to send a fact-finding mission to Sudan to establish the truth about the factory's role. The US has been widely criticised for offering unconvincing evidence that the factory produced precursors for VX nerve gas. Soil samples the US says were taken from the site before the attack are of uncertain quality as proof, independent scientists have concluded.

Determined to further dent US credibility, a Sudanese delegation yesterday defied UN sanctions on Libya when it flew on a Sudan Airways flight direct to Tripoli at the invitation of Muammar Gadaffi, the Libyan leader.

The flight took place as Taha Yassin Ramadan, Iraq's vice president, visited the bombed factory.

Price rise boost to drugs index

By Jenny Luesby in London

The price rise of a single generic drug, Lorazepam, lifted the US producer price index by 0.3 per cent in May and further boosted the growth in sales of prescription drugs in the world's largest drugs market.

According to figures published today by IMS Health, the healthcare information company, US prescription drug sales rose by 11 per cent in the year to May. The US drugs market has been expanding rapidly, driven by the newly legalised advertising of branded prescription drugs on television and by the take-off of the anti-impotence drug, Viagra.

However, in May, generic drug price rises contributed significantly to the 17 per cent rise in sales of central nervous system drugs.

The price increases, which lifted the producer price index for US pharmaceuticals by 10.7 per cent compared with the previous month, were concentrated among minor tranquillisers, for which the price index rose by 595 per cent.

The US Labour Department said that a single drug was responsible for the rise. Lorazepam is an anti-anxiety drug produced by Mylan Laboratories. Since last summer, Mylan has increased the prices of seven of its generic drugs by up to 1,000 per cent. These price rises have sparked an investigation by the Federal Trade Commission, which is considering whether Mylan has cornered the market for the drugs' raw materials.

However, Mylan has not been alone in pushing through extraordinary price rises on elderly, and unprofitable, generic drugs.

Other examples are a 316 per cent increase on generic clorazepate produced by Watson, and a 99 per cent rise in the codeine from Duramed. IMS now predicts "a substantial rise" in the US producer price index for pharmaceuticals this year.

Meanwhile, the government-mandated price cuts on prescription drugs in Japan has had precisely the opposite effect. According to IMS, the country's total prescription drugs market contracted by 4 per cent in the year to May. This has been reflected in company results. Hoechst Marion Roussel and Bayer of Germany are just two of the pharmaceutical companies to have reported serious setbacks in their drug sales as a result of the Japanese price cuts.

In Europe, the average growth in the region's five largest markets remained steady at 5 per cent.

Across the 12 largest drugs markets, central nervous system drugs reported the most rapid growth.

World retail pharmacy purchases
12 months to May 1998

$m	US	Japan	Germany	France	Italy	UK	Brazil	Spain	Canada	Argentina	Mexico	[illegible]
Cardiovascular	12,088	7,289	3,605	3,646	1,986	1,577	1,000	1,112	1,034	802	297	618
Alimentary/Metabolism	11,120	5,605	2,368	2,026	1,291	1,467	1,128	778	648	615	574	407
Central Nervous System	14,730	2,459	1,757	1,653	981	1,346	856	748	740	490	367	379
Anti-infectives	9,941	4,036	1,285	1,546	1,117	483	786	571	394	402	536	190
Respiratory	7,095	2,403	1,381	1,233	683	1,180	712	513	385	291	287	338
Genito-urinary	4,611	833	978	776	442	444	602	184	228	227	198	110
Musculo-skeletal	2,576	2,719	681	648	477	443	581	341	180	230	306	78
Others	9,382	12,722	2,869	1,770	1,572	1,654	1,136	787	706	604	658	384
Total	68,861	38,065	14,588	13,372	8,315	7,054	6,785	4,800	4,212	3,360	3,146	2,507
% Change*	11	-4	4	2	8	7	3	11	12	4	23	8

Source: IMS Health

* [illegible]

NEWS DIGEST

EGYPTIAN PRIVATISATION DISPUTE

Cairo proceeds with hotel sale negotiations

Egyptian government officials are negotiating the controversial sale of a state-owned hotel despite the threat of legal action against the buyers which is being prepared by lawyers representing the hotel's current leaseholder.

A consortium led by Prince al-Waleed bin Talal, the Saudi Arabian financier, which includes several leading Egyptian companies and the country's largest private bank, Commercial Investment Bank, is in the late stages of negotiating the purchase of the Nile Hotel in Cairo, which is valued at E£70m ($20m). The hotel is one of several the government has put up for sale as part of its privatisation programme.

Controversy surrounds the sale as the government in 1990 signed a 25-year lease with Wena Hotels, a UK-based hotel chain, for the company to operate the hotel. A dispute over the condition of the hotel led to the government reclaiming the property and using a variety of means to eject the company and its personnel from Egypt.

Wena is awaiting the outcome of arbitration by the Washington-based International Centre for Settlement of Investment Disputes. But since the government has pursued the sale of the hotel, in the face of Wena's lawyers' legal opinion which deems the 25-year lease to still be valid, Wena is now preparing a case against the probable new owners. As several members of the consortium have global interests, the legal action is likely to be taken in Europe or the US, Nael Farargy, Wena's manger, said yesterday. **Mark Huband, Cairo**

CYPRUS CONFLICT

Confederation idea rejected

The Cypriot and Greek governments have sharply rejected a proposal by Rauf Denktas, the Turkish Cypriot leader, that the island's Greek and Turkish communities solve their differences by coming together in a confederation that recognises "the equal and sovereign status of Cyprus's Greek and Turkish parts".

On Monday, Spiros Kyprianou, chairman of the Cypriot parliament, deputising for President Glafcos Clerides, described Mr Denktas's announcement as a way of "legalising Cyprus's division", which took place when the Turkish army invaded the north of the island in 1974. Dimitri Reppas, a Greek government spokesman, dismissed it as "a ploy to win legitimacy for efforts to partition Cyprus".

Until Monday, when he announced his proposal in the company of Ismail Cem, the Turkish foreign minister, Mr Denktas was still officially committed to the bi-communal federation that has been the basis for negotiations between the two sides since 1977.

His change of heart is part of a strong Turkish Cypriot and Turkish response to the EU decision to start accession negotiations with the Cypriot government and put Turkey at the back of the queue of applicant countries. The Turkish Cypriots refuse to enter the EU along with the Greek Cypriots, unless Turkey gets in at the same time. **Christopher de Bellaigue, Ankara**

GERMAN ECONOMY

Public deficit warning

The German Association of Private Banks (BdB) yesterday urged the Bonn government to bring down the country's public deficit and cut state debt. The call came on the eve of a two-day parliamentary debate on the federal budget.

"High budget deficits and a rapidly rising mountain of debts are increasingly becoming a burden for business and politics," said Ulrich Ramm, chief economist at Commerzbank and head of the BdB's committee on economic and fiscal policy. Germany's public debt last year stood at DM2,210bn ($1,248bn), or more than 60 per cent of gross domestic product. This had forced all levels of government to spend more than DM135bn on interest payments – about 16 per cent of total tax revenues, the BdB said.

Mr Ramm criticised plans by Theo Waigel, German finance minister, to maintain a public deficit until at least 2002, when it is estimated to stand at 0.5 per cent of GDP. "Given growth forecasts of 2.5 per cent annually, it should be feasible to achieve a balanced budget in three years' time," he added. **Tobias Buck, Bonn**

PUBLIC SECTOR WAGES

Israel to freeze salaries

Benjamin Netanyahu, Israeli prime minister, yesterday said he intended to freeze salaries of parliamentary deputies, senior civil servants and managers of state-owned companies ahead of difficult public sector wage negotiations.

The announcement reflects growing concern by the finance ministry and the Bank of Israel that public sector demands by the Histadrut trade union organisation may push up inflation. Nominal wage agreements have in the past been concluded on the basis of predictions of relatively high inflation, often resulting in real wage increases. Real wages per employee rose 2.5 per cent last year.

An inflation rate of between 4 and 5 per cent is expected this year. **Judy Dempsey, Jerusalem**

FRENCH WINE EXPORTS

Sales to Japan rise

The financial crisis in Japan has failed to spoil its inhabitants' taste for French wines, according to first-half export figures from the Federation of Wines and Spirits Exporters, released yesterday.

The organisation yesterday described as "extraordinary" the 83 per cent increase, to FFr2.6bn ($436m) in exports of champagne, wines and spirits to Japan, making it the biggest market behind the US and the UK. The surge in sales to Japan helped offset a 48 per cent decline in sales by value to Hong Kong and a 51 per cent fall to Taiwan, leaving total exports to Asia ahead 6 per cent.

The total value of exports of wines and spirits rose 18 per cent to FFr20.2bn, although this masked a 6 per cent decline in the value of shipments of spirits, mainly cognac and armagnac. **Mark Mulligan, Paris**

SUEZ LYONNAISE DES EAUX

French group wins US contract

Suez Lyonnaise des Eaux, the French utilities group, has added Atlanta, Georgia, to its US presence with a contract to collect and distribute drinking water to the city's 1.5m inhabitants. The company said yesterday that its United Water Services Atlanta joint venture had beaten a field of bidders to operate and maintain the city's water treatment facilities and 4,500km of mains and feeder lines.

The contract, which needs final approval from the Atlanta City Council, is the largest of its kind awarded by a US municipality, according to the French group.

It forecasts annual revenues from the project of $23m-$25m. The French group, formed through last year's merger of Suez, the conglomerate, and utilities group Lyonnaise des Eaux, has been aggressively looking for opportunities in the US since legislative changes in May last year made it easier for municipal governments to extend management contracts. **Mark Mulligan, Paris**

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MICROSOFT ANTITRUST CASE

Government broadens its attack

By Louise Kehoe in San Francisco and Richard Wolffe in Washington

The US Justice Department has raised the stakes in its antitrust case against Microsoft, the world leader in personal computer software, with broad new allegations of attempts to stymie competition.

After nine years of antitrust investigations and litigation, Microsoft is now facing very broad charges that it has, on several occasions, adopted illegal tactics in its attempts to maintain a dominant position in the personal computer software market.

In yesterday's court filing, the department said the company engaged in "a broad pattern of anti-competitive conduct designed to eliminate competition, to maintain and strengthen Microsoft's core monopoly over PC operating systems, and to monopolise key applications markets".

The case, which initially was focused on the so-called "browser wars" between Microsoft and Netscape Communications – the battle for market share in the emerging internet software field – has now been widened to encompass several other aspects of Microsoft's business practices.

In addition to allegations that Microsoft tried to persuade Netscape to co-operate in "divid[ing] the market" for browsers, the government claimed Microsoft had conducted similar discussions with Intel, the world chip leader, Apple Computer, the PC industry pioneer, and a small company called Real Networks.

Microsoft had also used its control over the Windows operating system to make competing products work, or appear to work, less efficiently with Windows than its own software, the government charged. This amounted to a "pattern of predatory conduct", the government claimed.

In another example of alleged anticompetitive behaviour, Microsoft is accused of setting out "to eliminate the potential threats posed by Netscape and Java".

Java, a programming language developed by Sun Microsystems, posed a threat to Microsoft because it enabled programmers to write software that would run on all types of computers. Microsoft entered into a series of agreements with customers and competitors to restrict the use of Java and to substitute its own version of the language, the government said.

Microsoft vigorously denied all the new allegations, which it said were included because the government was no longer confident of its ability to prove the initial case focused on the Netscape battle. "These kinds of collaborative discussions and efforts are commonplace throughout the industry and are to the benefit of consumers."

In its court filing yesterday, the US government based its arguments in large part on Microsoft's internal documents and interviews with its executives. But it accused Microsoft executives of "an astonishing lack of recall" when questioned about their own evidence.

Microsoft, in response, said its executives had co-operated to the best of their abilities with investigators.

Forbes lays claim to legacy of conservative grandees

Mark Suzman on why a prospective presidential candidate decided to surrender centre-stage to a former British premier

Steve Forbes (centre) with Lady Thatcher and Steve Grubbs, a local Republican, in Des Moines AP

It is rare for prospective presidential candidates trying to drum up support in the US heartland to surrender the limelight to anybody, and virtually unprecedented to do so for a foreigner.

But last month Steve Forbes, the publishing magnate, happily did both on a trip to Des Moines, Iowa. Even more bizarrely, at the conclusion of the hour-long lunch with the cream of the state's Republican party, Mr Forbes's political stock had risen tangibly.

Both the uncharacteristic behaviour by Mr Forbes and the curiously favourable response of his audience was very much due to the foreigner in question: Margaret Thatcher, former UK prime minister.

Although Lady Thatcher is largely out of fashion in her native Britain she remains deeply popular in much of the US, in part because of her association in the public mind with Ronald Reagan, fellow cold war warrior and beloved former president.

It is a connection that Mr Forbes was quick to highlight. At a time when the Republican party is looking nostalgically at the Reagan era, the 51-year-old businessman sought to use the occasion to lay claim to the Gipper's political legacy. "I believe in the principles personified by Lady Thatcher and Ronald Reagan," he said. "If we follow their principles and renew them, Americans and the world will benefit."

It is a bold ploy by Mr Forbes, who remains best known for his quixotic promotion of a "flat-tax" during the 1996 election. While his campaign held some appeal for the fiscally focused tax-cutting wing of the party, it never found a broad base of support. In Iowa – which holds the first presidential caucuses every election year and is the traditional make-or-break state for many candidates – Mr Forbes relied on a high spending television campaign and finished a distant third, effectively killing his candidacy.

But to the surprise of many pundits he did not take his defeat as a signal to return to the private sector. Instead, he has sought to learn from his mistakes and is all but certain to make another bid for the presidency in 2000.

And rather than relying on the media, this time the nascent campaign will revolve around a new grass-roots advocacy group called Americans for Hope, Growth and Opportunity, which already claims to have 120,000 members.

At the same time Mr Forbes has been patiently retooling his message to try to appeal to a broader audience in the way that Mr Reagan did.

Although he remains a strong proponent of the flat tax, he is now seeking to combine it with a string of social initiatives.

A key element of the new approach is Mr Forbes's decision to shed his previous low profile on religious issues and take a strong stand against abortion. Earlier this year he won plaudits from rightwingers when he was almost the only senior Republican to back a controversial – and unsuccessful – proposal to deny party funds to candidates who countenanced late-term abortions.

Now he is trying to test out his new approach in middle America, and the early signs are promising. In preliminary state-wide polls among Republicans likely to vote in 2000 caucuses in Iowa he is running second only to George Bush Jnr, Texas governor.

"In 1996 Forbes came into the race late and was unpersuasive. This time he's changed his message and has spent a lot of time trying to reach out to the pro-lifers," observed one party official. "I don't think the local party élite have decided to back him yet, but they are now looking more favourably at the possibility of a Forbes candidacy."

By bringing in Lady Thatcher for the state's most successful fundraiser ever – raising $500,000 for November's state elections – Mr Forbes also strongly helped his cause by demonstrating a commitment to the party while showing off his international credentials. "I've never seen people leave a fundraiser so happy," admitted John Maxwell, a political consultant.

And more importantly for Mr Forbes, those smiling Republicans left with a carefully phrased endorsement from Lady Thatcher ringing in their ears: "Reagan conservatives, Thatcher conservatives and Forbes conservatives all believe in the same fundamental things."

It remains to be seen whether her listeners will agree in 2000, but for the first time many at least seemed willing to entertain the possibility.

NEWS DIGEST

MIXED SIGNALS ON ECONOMY

US manufacturing sector continues to slow

The US manufacturing sector slowed in August for the third consecutive month as the Asian crisis kept hitting exports, but there were also signs yesterday of increasing economic activity in other sectors. The Purchasing Managers' Index stood at 49.4 per cent in August, up slightly on July's 49.1 per cent but still indicating a slowdown.

Meanwhile, the US construction sector was yesterday reported to be buoyant by the Commerce Department, with spending rising 0.4 per cent in July from June, to a record high.

In addition, the index of leading indicators, which gives an idea of future economic activity, rose 0.4 per cent in July due to the then-rising stock market and the settlement of the General Motors strike. The 0.4 per cent rise followed a 0.2 per cent decrease in June. However, the Conference Board, which issues the indicators, said recent declines in stock prices would "more than reverse this effect in the next release". **Adrian Michaels, Washington**

BRAZIL BUDGET

Doubts over growth forecast

The Brazilian government has published federal budget proposals for 1999 implying economic growth during the year of 3.9 per cent. The estimate is higher than that of most independent economists and was understood to be an attempt to signal the government's commitment to bringing public spending under control. But economists doubted the government could meet its target.

"It's a very optimistic projection of growth," said Mauro Schneider, of ING Barings. "Slower growth will inevitably lead to lower tax receipts. Once again the budget proposal looks more like a piece of fiction than reality."

The growth of Brazil's budget deficit, running at about 7 per cent of gross domestic product, is one of the biggest causes of concern over the country's ability to withstand the current turmoil on world financial markets. According to the budget proposal, which must be approved in Congress, federal spending will rise to R$187.8bn (US$160bn) from R$181.4bn this year. **Jonathan Wheatley, São Paulo**

MEXICO CITY

Shake-up for police force

Mexico City's new police chief has announced plans to reorganise the police force in a shake-up intended to tackle the crime wave that plagues the city and damages the image of governor Cuauhtémoc Cárdenas, presidential aspirant.

Public clamour about continued insecurity in the Mexican capital of 8m people is the leading issue on which Mr Cárdenas will be judged as the first opposition party governor of Mexico City. He hopes to use the post to launch his candidacy for president in the July 2000 national election.

Alejandro Gertz Manero, in his first action as police chief, handed supervision of municipal police to Ricardo Pascoe, appointed mayor of Benito Juárez district on Monday. Transferring police supervision to the 16 districts is part of a drive to bring the police closer to local government and citizens' groups. **Lucy Conger, Mexico City**

On the web today
- Brazil: Pioneers try to maintain a head of steam in boom state
- US: College intake's ethnic mix grows

http://www.ft.com/americas

NORTHERN IRELAND REPUBLICANS' OLIVE BRANCH AHEAD OF CLINTON VISIT FALLS SHORT OF SAYING 'THE WAR IS OVER'

Sinn Féin pledges to help end violence

Financial Times Reporters in London and Dublin

Gerry Adams, the Sinn Féin president, yesterday offered an olive branch to Northern Ireland's unionists, committing his party to making violence "a thing of the past, over, done with and gone".

The statement falls short of declaring that the Irish Republican Army's war is over, as unionists have demanded, but Mr Adams went further than ever before to renounce republican violence. Sinn Féin is the political wing of the IRA.

The announcement came as the UK government unveiled anti-terrorist legislation aimed at rooting out the Real IRA, the breakaway paramilitary group which claimed responsibility for the deaths of 28 people in last month's Omagh bomb.

The bill, to be scrutinised today by MPs who have been recalled to parliament for two days of emergency debate, is intended to crack down on a handful of fringe terrorist organisations in Northern Ireland and make life harder for international terrorist groups operating out of the UK.

One unexpected clause is that all prosecutions for involvement in a conspiracy to commit a terrorist act outside the UK will require the consent of the Attorney General.

Sinn Féin's move, timed to coincide with President Bill Clinton's visit to the region tomorrow, was welcomed as a significant advance by governments of the UK and Republic of Ireland.

David Trimble, Northern Ireland's first minister and leader of the Ulster Unionists, the biggest pro-British party in the region, was more cautious. "Carefully crafted words alone are not enough," he said, adding that the people of Northern Ireland would judge Sinn Féin on its actions.

David McNarry, a unionist assembly member and a leading member of the Protestant Orange Order, said: "It's a start, but we've heard this before. It's probably a bit of window dressing before the Clinton visit."

Mr Adams' declaration condemned the Omagh bomb "without equivocation" and called on all sides to ensure that it was "the last violent incident in our country".

"Sinn Féin believe the violence we have seen must be for all of us now a thing of the past, over, done with and gone. In particular, the two governments have the principal responsibility, as do the party leaders. I am committed to play my part, as is Sinn Féin," Mr Adams said.

In the draft anti-terrorism legislation published yesterday, the UK government appeared to have responded to civil liberties concerns. The law will be subject to annual renewal and the evidence of a police officer on membership of a proscribed organisation will require further corroboration.

The Dáil, the Irish national assembly, is also due to debate similar changes in its anti-terrorist legislation, giving powers to the police to bring prosecutions against renegade republicans and other groups opposed to the peace agreement.

Unlike in the UK, there has been little opposition to the measures on human rights grounds. The Irish government, sensitive to suggestions the Real IRA was organising its activities in the republic, was first to outline the proposals, which were then matched by the UK government.

Ireland ranks high among Clinton's global priorities

The peace process is seen as a foreign policy success, despite difficulties elsewhere. **Stephen Fidler** reports from Washington

The day before testifying to a grand jury about his relationship with Monica Lewinsky, President Bill Clinton had an extensive telephone conversation with Tony Blair, the UK Prime Minister.

The call – concerning the previous day's bomb attack in Omagh in Northern Ireland and its effect on the peace process – lasted half an hour, according to British officials, even though Mr Clinton's lawyers were reportedly anxious to rehearse the following day's ordeal.

Samuel Berger, the president's national security adviser, the next day telephoned Irish leaders including Gerry Adams, president of Sinn Féin, the political wing of the Irish Republican Army.

The calls, and Mr Clinton's visit this week to the north and south of Ireland, reveal the extent to which the administration remains committed to what it sees as an important foreign policy success.

On his trip to Russia, which precedes the Irish visit, Mr Clinton is being accompanied by four members of Congress, two from each house. In Ireland, he will be joined by a further 17 legislators.

James Steinberg, Mr Berger's deputy at the National Security Council, says the visit – which in Northern Ireland will take in Belfast, the capital, Omagh and Armagh before heading south of the border – has three main purposes.

They are to "pay tribute to the courage and determination of the leaders and the people of Northern Ireland and the republic for making the agreement possible"; to show support for the new political arrangements, especially the assembly; and to back the peace process economically by helping to attract investment and jobs.

Asked if the US would press for a meeting between David Trimble, first minister in the new assembly, and Mr Adams, Mr Steinberg said it was important for all of the parties to the peace process to begin to work together. "We would certainly hope that Mr Trimble and Mr Adams have a chance to meet," he said.

The UK government has been seeking US help in a number of areas following the Omagh bombing. Washington quickly revoked the visa of Bernadette Sands-McKevitt – sister of IRA hunger striker Bobby Sands, who died in prison in 1981 becoming a republican folk hero – and making clear that members of her 32 County Sovereignty Movement would not be welcome in the US. That group is viewed by the US as the political mouthpiece for the Real IRA, the perpetrators of the Omagh bombing in which 28 people died and more than 200 were injured.

British ministers have also urged the Clinton administration to use its undoubted influence with Mr Adams to press him – and the IRA – on two important questions. The first relates to the "decommissioning" of weapons, a subject that has taken on added weight after Omagh.

The second is to persuade Sinn Féin and the IRA to share information they are believed to hold that could help track down the bombers.

A hint that the US may already have made these points – and that Mr Clinton may be expected to repeat them either privately or publicly on his visit – has already emerged.

IRA leader has given a rare interview which will appear soon in An Phoblacht-Republican News, the Irish nationalist weekly journal, but which was released early for publication in US newspapers. He denied that the IRA had any link with those responsible for the Omagh bombing and calls for the breakaway group to disarm. "They should disband, and they should do so sooner rather than later," he said.

Out of the rough: welcome posters in Ballybunion, in the Irish republic, where Mr Clinton is expected to take time out this week to play a round at the village's golf course AP

'Chronic safety problems' found at nuclear plant

By Vanessa Houlder in London

An audit of the Dounreay nuclear plant in northern Scotland has uncovered "many chronic safety problems", the Health and Safety Executive said yesterday.

The watchdog said the site is currently safe. But the United Kingdom Atomic Energy Authority, which operates it, needs to invest "considerable effort, time and resources" to bring it up to standard, said Laurence Williams, the HSE's chief inspector of nuclear installations. A culture change was needed at the UKAEA, which needed to adopt fully the necessary standards and targets "rather than attempting to do the minimum necessary", he said.

The report's main finding concerned management and technical shortcomings and their impact on decommissioning. It said "organisational changes made within the UKAEA over the last four years have so weakened the management and technical base at Dounreay that it is not in a good position to tackle what is now its principal mission – the decommissioning of the site", Mr Williams said.

The audit also criticised an "overdependence" on contractors for many key functions which should be under the clear control of UKAEA. There was also concern that the UKAEA had not yet developed a comprehensive strategy for dealing with radioactive waste.

Conditions in the fuel cycle area ranged from the good to the very bad, the report said. '"While HSE is satisfied there is no imminent danger, it is suspect that UKAEA had been operating plants without clear knowledge of some of the risks," it said.

The audit of the site began on June 1, after an incident that left the fuel cycle area without its normal electricity supply for 16 hours. The area is not currently in operation and processing activities will not resume until the inspectors agree that an adequate safety case has been made.

The UKAEA said it took the report very seriously. It plans to publish a programme for implementing the work recommended in the report by the end of November.

NEWS DIGEST

CITY OF LONDON REGULATION

Unit trust manager fined for poor administration

The Investment Management Regulatory Organisation has ordered Abbey Unit Trust Managers to pay fines and compensation totalling £590,000 ($973,500). The action against Abbey, part of the Lloyds TSB group, is the latest in a series of fines for poor administration imposed by Imro on unit trust managers. "The overlying message is that firms must recognise the importance of back office administration and the potential for customer loss," said Judy Delaforce, head of media relations at Imro. Abbey has paid £168,000 to 7,090 customers as compensation for delays in banking customers' cheques, in dealing with applications and in sending out sales proceeds. The manager has paid an additional £272,500 to correct mistakes relating to its four personal equity plan unit trusts. The group said the problems, between December 1995 and July 1997, coincided with a marketing promotion. Imro said it had fined Abbey a "fairly high" £150,000 because customers had lost money. **Jean Eaglesham, London**

THE ECONOMY

Factory output falling fast

Factory output is falling at its fastest rate for at least six and a half years, according to the latest monthly analysis from the Chartered Institute of Purchasing and Supply. But consumers still appear willing to spend and borrow. Almost 40 per cent of manufacturers reduced output over the past month, said the survey. Only a third as many companies stepped up production. The drop in production is in response to a further weakening in domestic demand and export order books. Export order books have been falling since May last year, in the face of sterling's strength and the Asian crisis. August's decline was the second biggest recorded since then. **Robert Chote, London**

INSURANCE

'2000 bomb' policy launched

A Lloyd's of London syndicate yesterday launched an insurance product to cover financial institutions against losses stemming from the so-called millennium computer bomb. "This product is an attempt to provide our clients with the coverage that they need rather than ignoring the problem and hoping existing traditional policies will respond," said William Knapman, an underwriter with Syndicate 839, which is managed by Archer, one of Lloyd's biggest managing agencies. The move comes as many insurers are introducing clauses to prevent claims after 2000. Syndicate 839 was helped by Reynolds Porter Chamberlain, the law firm, and computer expertise came from Amsec International. The millennium bomb refers to the inability of older computer systems to distinguish between the 19th and 20th centuries.**Jim Kelly, London**

BA-AMERICAN AIRLINES ALLIANCE

Charter groups join slots battle

The UK's charter operators have joined the battle to prevent British Airways and American Airlines receiving financial compensation for London take-off and landing slots they are being asked to give up. The UK Office of Fair Trading and the European Commission have said BA and American should give up 267 weekly slots at London's Heathrow and Gatwick airports in return for approval of their planned alliance. The OFT said they should be allowed to sell the slots while Brussels insists they be given up for free. The charter airlines – including Britannia, Airtours International and Air 2000 – say BA and American are like tenants rather than freehold owners of the slots. They add that if BA and American were certain they owned the slots they would have valued them on their balance sheets. **Michael Skapinker, London**

OBITUARY SIR GORDON NEWTON

A great editor who took the FT from City into the wider world

Sir Gordon Newton, who died on Monday at the age of 90, was one of those rare individuals whose whole career can be summed up in three words: a great editor.

At this singular activity, in 22 remarkable years, he showed consummate skill and achieved unquestioned success. He turned the Financial Times, his consuming interest, from a City sheet selling 50,000 copies a day into a world-ranking economic and political newspaper with almost four times that circulation.

Views inevitably differed on Newton the man, but his admirers (who were legion) and his critics (who were few) thought alike of Newton the editor. He was intuitively, painstakingly brilliant at his job; and his powers of hunch and unremitting, dedicated concentration had their full reward.

Nothing in Newton's background gave an indication of his future career. He was born in 1907 into a business family (the company made glass and mirrors, but failed in the pre-war slump of the 1930s), which might seem appropriate for a future financial journalist. But in truth Newton had no great instinct for business. The prime lessons he learnt from his own commercial career were those of failure.

After the bank took over his father's company, Newton on his own just survived the rough-and-tumble of making mirrors for furniture in Bethnal Green. But then he lost his capital completely in retailing car accessories.

These experiences must powerfully have reinforced Newton's innate competitive drive, developing his lifelong identification of success with measurable achievement, and nothing short of that. But to those who knew him only as a great editor, those early days were a closed book. Newton rarely talked about himself. When he did it was a surprise to learn that he was a science scholar at Blundell's, a renowned schoolboy runner, and a talented violinist.

Gordon Newton in 1950 shortly after he had been appointed editor

Even the fact that he had been to university (to read economics at Cambridge) was not obvious to all the young men and women he recruited from Oxbridge. While Newton was undeniably a journalist of genius, his genius, like his education, did not reside in literature. As an editor he wrote few words – and those with difficulty. Yet when he landed a post on the then Financial News (at the age of 26, after a dispiriting spell of slump-time job-seeking), he rapidly became a writer. He would recall that he had often written a news story, a feature, a Lex note and an editorial all in one day.

His capacity for hard work was reflected in his rapid promotion – a policy that, later on, Newton as editor loved to apply to others. He was news editor by 1939, when he enlisted in the Territorial Army and began another successful career as a wartime soldier. But his connections with the newspaper were not broken: a third of his salary (£750 a year when he left) was paid, in pound notes, throughout his army service. His FN boss, Brendan Bracken, then at Churchill's right hand, noticed and approved when Newton, newly commissioned, refused a special mission from Downing Street that would have taken him out of the army. He became a distinguished gunner, entrusted with the proximity fuse that shot down the German doodlebugs as they reached the English coast.

After Bracken engineered the merger of the Financial News and Financial Times in 1945, the demobbed Newton again filled important jobs. But Bracken's inspired choice of this 42-year-old to edit the merged paper in 1949 was apparently less than obvious to his contemporaries. Certainly, Newton's innate toughness was severely tested in those early, difficult, 14-hour working days: the effects on his personality were still visible in the 1950s.

Taut, tooth-tapping, and laconic in conversation, he was not easy to know, and often not easy to work for – especially if the work slipped below his perfectionist standards. Yet Newton was far from being an abrasive character. To anybody in personal trouble, or to whom he had been harsh, he could be kindness itself.

That was only one of the many Newtonian paradoxes. His whole career, unique among the newspaper editors of his time in several respects, was paradoxical. He worked all his life outside the mainstream of Fleet Street, yet turned a specialised paper into one that earned mainstream respect; and that, despite its specialisation, came to rank clearly (and very high) among the existing, more general, quality dailies.

He devoted himself almost entirely to the affairs of the FT, yet his influence extended far beyond its pages and its direct impact, partly as a result of his recruitment and development of gifted young writers. Their distinguished subsequent work as writers and editors, within the paper and outside it, or as politicians, managers or bankers, must stand as another lasting monument, alongside the FT itself, to Newton's exceptional talents. And he earned their loyalty. Only his ill health eventually brought an end to the annual dinners held in his honour for many years after his retirement by those whom he had hired and inspired.

The commercial and editorial success that followed, of course, was not Newton's alone: in fact, he tended at all times to deprecate any cult of his own personality. He worked closely with Brendan Bracken; not until the latter part of Lord Bracken's life, dogged by terrible illness, did their relationship deteriorate, as the editor came to resent what he saw as his chairman's obstructionism. The relationship with Lord Drogheda, the chief executive during Newton's editorship and for some years thereafter, was not free from creative tension but it remained productive throughout.

In another paradox, the aristocratic, cultured charm of the chairman seemed incompatible with the editor's plain-man, all-business exterior. But the two men, and with them the editorial and commercial sides, were always in harness, never in competition, as they exploited the long post-war rise in business and financial advertising that underwrote Newton's progressive, never-ending improvements in the paper.

That harmony accurately reflected Newton's extreme pragmatism. As an editor, he was totally absorbed in practical details of production and lay-out, news and coverage. He never forgot his first duty was to the readers of the next morning's paper; he would simply ignore any diversion that might conflict with his primary tasks. His desk always seemed empty, his door open. Meetings with him were nearly always short, sharp and to the point. He always seemed to have time for a leisurely stroll in and out of the offices, peering over a journalist's shoulder with his legendary question: "What are you on?"

The answer seldom stimulated any very informative discussion. But Newton acquired an equally legendary reputation as a judge of what the journalist eventually produced. He rarely gave much reason for disliking a paragraph or rejecting a whole piece – if necessary, again and again: but his writers came to recognise that he was almost invariably right.

Right or wrong, anyway, there was seldom any point in arguing. Newton knew his own mind, and he knew how to run an office where political bickering and infighting were pointless. He was quick, decisive and critical in handling copy and correspondence alike: and departmental heads were supposed to follow suit.

Newton never forgot his first duty was to the readers of the next morning's paper

Because his life was so dominated by the FT in particular, and by the craft of newspapers (which he read, avidly) in general, Newton tended to have narrow personal interests.

One aspect of this was that he never took a close interest in the affairs of the City – a somewhat anomalous feature in the editor of a financial paper. However, at the start of the 1960s, with the appointment of a women's editor and a general loosening-up of the paper's writing style and subject matter, Newton proved himself well able to lead in new, broader and more stimulating directions. Previously, this ability had been only hinted at by the arts page, filled by some of the best critics writing in London.

Newton's neo-Spoonerisms were famous – "tert" for a short, concise piece: or "insinnuendo": or, to describe the amount of work supplied by one foreign correspondent, "it wouldn't get through the eye of a camel". Yet, on reflection, these assaults on the language give a clue to Newton's brilliance as a journalist: completely by instinct, he put across a thought, and made his point in a manner that was more personal and more compellingly alive than the most gifted of writers could have achieved by deliberation.

That, in the end, was the key to his success with the FT. The points were made, the information conveyed as directly and concisely as Newton could achieve by using all the techniques of professional journalism. His intuition told him what his readers in the new professional classes (in management and elsewhere) wanted to know. His professional skill supplied these wants. The readers, the market for advertising, Newton and the paper seemed made for each other.

That is the crowning tribute to the editor's achievement in 22 years that saw not only a succession of tremendous events in the worlds covered by his newspaper but also witnessed a transformation in British business life, out of darkness into the light of increasingly full exposure, in which Newton's FT played a leading role.

He richly deserved his three honours – a knighthood in 1966, when he also received the Hannen Swaffer award for journalist of the year, and a Granada Television special award in 1970, two years before his retirement at 65.

Characteristically, outside the FT his role was restricted. Newton undertook a review of the Central Office of Information for Edward Heath (now Sir Edward) in 1970, and served on the Committee on Privacy set up that year. He took up two chairmanships on leaving the FT in 1973 (of a City conglomerate, J H Vavasseur, and London Broadcasting). But both appointments brought more grief than gratification. However, his lifelong passion for fishing was admirably suited for his retirement to Bray in Berkshire.

Gordon Newton married Peggy Warren in 1935 and they had one son: they both predeceased him. But in truth his family extended much wider. For British financial and economic journalism in the second half of the century, Sir Gordon Newton was the unchallenged father-figure; although that is a title and a phrase he would probably have detested – and deleted.

In 1987 the FT gave a dinner to celebrate his 80th birthday. Speaking entirely without notes, for he was by then almost blind, Newton gave the most memorable of speeches. His theme was the independence and integrity of the newspaper, and its potential for the future. The experience finally led him to write his memoirs. Originally his thought was that they might be published posthumously, if at all. They were privately printed under the title "A Peer Without Equal" – another noted Newtonism – just after his 90th birthday last year.

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NEWS DIGEST

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OPERA PESARO

Rock 'n' Rossini

The festival is trying to cultivate a younger audience, writes **Luciano Chianese**

This year's programme at the Rossini festival in Pesaro was a mixture of courage and caution: the three operas were tailored to the tastes of seasoned opera fans, while trying to gain the favour of a broader audience. The highlight was undoubtedly Luca Ronconi's new staging of *La Cenerentola*, a work which, for all its undoubted popularity, had not previously been performed at the festival.

Despite his reputation for heavyweight stagings, Ronconi artfully maintained a light, comical approach to the opera, but could not resist stealing the show in the scene changes. After the opening scene, Margherita Palli's entire set, bristling with bric-a-brac, was magically lifted into the air to make way for the lavish prince's palace, leaving the audience gasping at the technical virtuosity of it all. Particularly striking was the point at which Angelina shot up the chimney, emerged in full ball regalia at the top, and was carried off by a huge white stork. By the fourth scene change, however, one's patience was tried by the lengthiness of the whole process.

Carlo Rizzi conducted the ORT Orchestra della Toscana with a keenly-focused eye for the colour and detail that characterise the Pesarese master's writing. Given the poor acoustic of the Palafestival, however, the sudden crescendos often fell victim to the warehouse-like structure of the building. Rizzi's full powers emerged during the choruses, in which Rossini's taste for quirkily tossing the tune between voices and orchestra was given full expression.

In the title role, Vesselina Kasarova stood out for her beautifully delicate and precise singing, while her rich, versatile voice coped equally well with the broad range of pitch required of the part. As a flamboyant Don Magnifico, Bruno Praticò steered his character along the dividing line that separates the credible from the ridiculous, managing to be comical as the crawling courtier, severe as the authoritarian father and touching as the thwarted father-in-law to the future king. Although at times drowned by the more powerful voices of the rest of the cast, Juan Diego Florez's Don Ramiro stood out during his solos as having great expressive potential, backed by rare technical mastery.

The same cannot be said of one of the festival's other leading tenors, Paul Austin Kelly. His Rodrigo in *Otello* may have stood his ground in terms of volume, but his grating tone and occasionally errant rhythm drew hostile cries from less clement members of the audience. With Bruce Ford in the title role and Charles Workman as Iago, this staging of Rossini's tragic opera had promised much. But the real justification for reviving the festival's 1988 production – apart from giving a second run to Pier Luigi Pizzi's fine sets – was Mariella Devia as Desdemona. Not only did she sing and act masterfully, pitching her top C sharp in the final act effortlessly, but she also managed to steer clear of the temptation to over-romanticise the part. The result was clearly in line with the historical period that bridges bel canto and Verdian melodrama.

One wonders how many of the festival's traditional audience attended *Isabella*, Azio Corghi's new opera inspired by *L'Italiana in Algeri*. This was a valiant effort to bridge the abyss that divides modern trends in music from the classical repertoire. Dubbed a "teen-opera", *Isabella* left no one in doubt about its target audience: it represents another attempt to bring opera to the so-called "masses".

In a disco-dark atmosphere of strobe lighting and all-round sound diffusion, dazzling special effects helped to distract attention from Corghi's static score, which tended to reveal the fragile nature of the original plot rather than breathe new life into it. Corghi's music inevitably paled before the passages taken from Rossini's opera, which cropped up frequently, and the combination of new and old did nothing for either. Only at a few isolated moments was the virtuosity of Rossini's fast sequences given additional depth by the heavy bass beat beneath. Most of the time, the characters in the new opera lacked any form of credibility or personality.

Festival first: Vesselina Kasarova in Luca Ronconi's new staging of 'La Cenerentola'

THE PROMS

A full house for a big weekend

With the Notting Hill carnival and the anniversary pilgrimage to Kensington Palace, the home of the late Princess of Wales, the streets of Kensington were awash with people over the holiday weekend. Among them a lucky few *thousand* fought their way to the Royal Albert Hall for four of the season's major BBC Proms.

On Thursday and Friday the Berlin Philharmonic under Claudio Abbado gave two concerts, following on from their appearance at the Edinburgh Festival. After their Prom visits in recent years we know to expect higher seat prices (still cheap at top price £32) and "standing room only" signs which mean what they say, i.e. no space to collapse if you faint. It also goes without saying that many of the solos and entire departments of this orchestra played to the highest standard, though Abbado seemed to be driving them harder than before with less concern for balance.

Thursday's concert began with a subdued performance of Mozart's Concerto for Flute and Harp, in which Emmanuel Pahud's beautiful playing of the flute part alone showed signs of life. By comparison, the Bruckner which followed was vital almost to excess. Abbado has always had a strong sense of pacing, even if it is not necessarily the kind that Bruckner demands. The salient features of this performance of the Fifth Symphony were the Italian virtues of forward movement, a keen sense of drama, and lyrical lines in the strings that really sang. Maybe the patient wisdom of intuitive Bruckner conductors like Jochum and Wand only comes from Germanic stock, though when the final blaze of the glorious Berlin brass arrived, there was no denying that Abbado had carried the symphony through to a *convincing conclusion*.

The Friday concert was much as has been reported from Edinburgh. Wolfgang Rihm's *In-Schrift* made an impact through its extreme contrasts of sound without satisfying the need for some content of substance in between. Maria João Pires sought a chamber-room intimacy in Schumann's Piano Concerto, which did not work in the Albert Hall; her musicianship is too self-effacing for a venue this size. Abbado's performance of Brahms's Third Symphony went with a thrashing intensity, but never suggested he has found a deeper meaning, as romantics like Fürtwangler and Karajan, or classicists like Sanderling and Dohnányi have.

Glyndebourne's production of Verdi's 'Simon Boccanegra' *unexpectedly got* the shot in the arm it needed

On Saturday Glyndebourne Festival Opera came to the Proms for its annual visit. Verdi's *Simon Boccanegra*, not the strongest of the festival's operas this year, unexpectedly got the shot in the arm it needed at the Proms. The advertised baritone had withdrawn at the last moment and the title-role was taken instead by Paolo Gavanelli, who sang with a fine bel canto elegance in the lyrical passages but could still deliver the power *when it was needed*. Mark Elder and the London Philharmonic, just as dramatic as in the theatre, treated Verdi to some uncommonly expert orchestral playing.

The Sunday concert was – remarkably – a BBC Proms first. In over a century of the Proms there has never been a performance of Elgar's oratorio *The Apostles*, which one would have thought a must in the Edwardian era. Better late than never, Andrew Davis and the BBC Symphony Chorus and Orchestra made sure that they did the work's Prom premiere justice, not perhaps with the inspirational zeal of a Barbirolli, but giving a judicious performance that took care over every detail.

Among the soloists three were outstanding: the sensitive soprano Felicity Lott, Anthony Michaels-Moore singing Jesus's music with warm-hearted lyricism, and John Tomlinson in the darkly dramatic role of Judas. So much in his scenes and the quiet majesty of the Crucifixion and its aftermath are lifted on to a high *plane of inspiration* by Elgar that it is a shame the first half of the score is so grey. On balance, however, it seems fair to judge *The Apostles* underrated. This overdue performance added lustre to an already strong proms weekend.

Richard Fairman

EDINBURGH DANCE

From woe to rapture

Clement Crisp on the Hans van Manen retrospective

The Edinburgh Festival's retrospective of Hans van Manen choreographies ended last week with performances by Dutch National Ballet and two of Nederlands Dans Theater's troupes – the young NDT 2 and the elderly NDT 3. On Thursday night the dismal Playhouse seemed even more like William Blake's "Place of woe" as the NDT ensembles unveiled recent works featuring all the worst, the most anxious and unmusical, aspects of van Manen's creativity.

Two movements of the Ravel string quartet were shish-kebabed to provide sustenance for three NDT2 couples (whence the title, *Couples*) who ran, slithered and postured in that un-nuanced and unrelentingly eager fashion which is all surface and no sense.

Even worse was the geriatric therapy of *The Old Man and Me* in which Sabine Kupferberg came on hot and strong to Gerard Lemaitre, a grand dancer from NDT's early days, and still a vivid and compelling stage presence. There seemed variously undignified and Saga-ish hints at "sex can still be fun" and "why not subscribe to our funeral plan *now*", while a ghastly ballad, Stravinsky's circus polka, and the adagio from Mozart's K.488 piano concerto were offered as a soundtrack. Since there is no more astute trick than to play a Mozart adagio in order to win over a dance audience (I recall with unchilled fury the clarinet concerto adagio as prop for a sickener about two chaps being very brave about you-can-guess-what), the piece was greeted with delight. All that was missing was a rain of little mauve plush teddy bears thrown by the audience on to the stage at curtain fall. The evening closed with *Grosse Fuge*, which I find so horrible, so grotesquely inapt as a view of that awe-inspiring music, that I can no longer bear to write about it.

But, and how welcome, the centre of the programme brought the dazzling *Solo* from 1997, in which three men move like fiery particles at the behest of Bach solo violin music, and a brand-new work, *Zero Hour*, of dark and exhilarating imagination. In *Solo*, NDT2's Mario Zambrano, Brynjar Bandlien, Shintaro O-ue whistled over the stage in a relay race of ideas and steps handed on, with split-second timing and micro-second pauses and changes of direction: it is bravura writing, done with consummate skill and dynamic verve. In *Zero Hour* van Manen returns to Astor Piazzolla, choosing tangos of the angriest and grittiest sonorities. His cast, from NDT3, are Sabine Kupferberg and Gioconda Barbuto, Gerald Tibbs and David Krugel. Dress is dark-toned, the stage darker still, the mood darkest of all. Sexual challenge, rivalry, provocation and menace inform

the mood and the steps. These are men and women – the tango is, in any case, for grown-ups – and their feelings and their perceptions are adult as well as adulterous. It is a brooding and uneasy piece, danced with superb assurance.

The final programme came on Saturday night, when the Dutch National Ballet presented three works at the Edinburgh Playhouse. The theme was yet again *the anxieties in relationships* that van Manen weaves into so much of his work. (Cephalus and Procris are not for him: he sees knife-throwing as the emotional norm). I am no great admirer of *Adagio Hammerklavier* since Beethoven's world of feeling does not accord with three couples behaving tiresomely: sublime music is made to seem sanctimonious. The reward was the presence of Larissa Lezhnina in the first duet, her style all harmony and elegance.

But with Prokofiev's *Sarcasms*, the relationship between Sofiane Sylve and Jahn Magnus Johansen was as combative, sardonic, viciously bantering as the music, and in a tremendous account of *Twilight*, the odd rattles from Cage's score for prepared piano, the backdrop of an industrial complex, and the duel between Nathalie Caris (spike-heeled shoes and spike-heeled temper) and the combative Wim Broeckx was stunningly in focus as a display of sexual sparring, quarter neither given nor sought. It is a brilliant choreographic study, danced here with astounding rhythmic acuity and dramatic point.

The final piece was *Live*. It features a dancer (Sabine Chaland, who is a beauty to stop the heart) and a *cameraman armed with a* video-recorder, plus Gael Lambiotte as the abrasive male. I first saw the piece 20 years ago and I am still thrilled by its power to suggest different layers of existence, from the actuality of the danseuse and the presence (on a screen at the back of the stage) of her video existence – the camera tracks her every move – to the fact that pre-filmed clips suggest her own memories and her prior *existence. The camera follows* her as she moves from the stage through the auditorium into the public areas of the theatre, then into the streets of the town. Her absence (and yet her presence on film), her presence (and yet her memories of a nasty encounter with the young man) and her "disappearance" into the parallel world outside the theatre, all pose fascinating questions about what we see, who the dancer is *and what she feels, how various* realities can intersect. Sabina Chaland is a beautiful dancer; Lambiotte plays admirably to her, and must treat her like a brute. The accompaniment is late Liszt piano music, admirably played by Mikhail Mouratch. The piece is very, very clever, and very, very touching.

This NDT programme held the stage of the Edinburgh Festival Theatre, and an eager audience, with nine dancers, two pianists (Mouratch's colleague was the no less gifted Robert Greuter), and a great deal of imagination.

Three couples behaving tiresomely: scene from Van Manen's 'Adagio Hammerklavier'

INTERNATIONAL

Arts Guide

AMSTERDAM

CONCERTS
Concertgebouw
Tel: 31-20-675 4411
Los Angeles Philharmonic: conducted by Esa-Pekka Salonen in works by Adams, Mahler and Sibelius. With mezzo-soprano Lorraine Hunt; Sep 8

BEIJING

OPERA
The Forbidden City
www.turandot-on-site.com
Turandot: by Puccini. Conducted by Zubin Mehta in a staging by Zhang Yimou. With the Maggio Musicale Fiorentino. Casts vary, with the title role sung by Giovanna Casolla, Audrey Stottler and Sharon Sweet; Sep 5, 6, 7, 8

BIRMINGHAM

CONCERT
Symphony Hall
Tel: 44-121-212 3333
Chicago Symphony Orchestra: conducted by Daniel Barenboim in works by Strauss, Berg and Tchaikovsky; Sep 5

BRUSSELS

CONCERT
Palais des Beaux Arts
Los Angeles Philharmonic: conducted by Esa-Pekka Salonen in works by Copland, Salonen and Sibelius; Sep 2

BUDAPEST

EXHIBITION
Hungarian National Gallery, Buda Castle
Tel: 36-1-375 7533
Jozsef Rippl-Ronai: retrospective of the Hungarian post-Impressionist, comprising 250 works. Includes decorative art objects and personal photographs and letters as well as paintings loaned by private collectors and museums; to Sep 6, then transferring to Saint-Germain-en-Laye near Paris

CHICAGO

EXHIBITION
Art Institute Of Chicago
Tel: 1-312-443 3600
www.artic.edu
Japan 2000: Design for the Japanese Public. Part two of the series focuses on the G-Mark system which promotes good design. Includes watches and bicycles; Kisho Kurokawa Gallery; to Sep 7

EDINBURGH

OPERA
Edinburgh International Festival
Tel: 44-131-473 2000
www.go-edinburgh.co.uk
● Dalibor: by Smetana. New Scottish Opera production by David Pountney. With sets by Ralph Koltai and costumes by Sue Wilmington. The conductor is Richard Armstrong; Edinburgh Festival Theatre; Sep 3, 5
● Libuše: by Smetana. Concert performance by the BBC Scottish Symphony Orchestra and the Edinburgh Festival Chorus, conducted by Oliver von Dohnányi; Sep 4

THEATRE
Edinburgh International Festival
Tel: 44-131-473 2000
www.go-edinburgh.co.uk
● Caligula: by Albert Camus. Dutch performance with English subtitles, directed by Ivo van Hove and designed by Jan Versweyveld; Edinburgh Playhouse; Sep 2, 3
● More Stately Mansions: by Eugene O'Neill. Adapted by Karl Ragnar Gierow from O'Neill's unfinished manuscript. Ivo van Howe directs the New York Theatre Workshop; Royal Lyceum Theatre; Sep 2, 3, 4, 5
● Phèdre: by Racine. New Théâtre Vidy-Lausanne production, directed by Luc Bondy. Valérie Dréville plays the title role; King's Theatre; Sep 2, 3, 4, 5

FRANKFURT

OPERA
Oper Frankfurt
Tel: 49-69-21237 999
www.frankfurt-business.de/oper
La Traviata: by Verdi. In a staging by Axel Corti; Sep 4, 6

LONDON

CONCERTS
BBC Proms, Royal Albert Hall
Tel: 44-171-589 8212
● BBC Singers: conducted by Jane Glover in works by Britten, Kodály, Elgar, Szymanowski and Parry. With the Choristers of Guildford Cathedral; Sep 4
● BBC Symphony Orchestra: conducted by Manfred Honeck in works by Webern, Beethoven and Prokofiev. With piano soloist Alfred Brendel; Sep 2
● Chicago Symphony Orchestra: conducted by Daniel Barenboim in the European premiere of Harrison Birtwistle's Exody. The programme is completed by Mahler's Symphony No. 5; Sep 3
● Chicago Symphony Orchestra: conducted by Daniel Barenboim in works by Strauss, Berg and Tchaikovsky; Sep 4
● Czech Philharmonic: conducted by Charles Mackerras in works by Janáček and Mahler; Sep 7
● Czech Philharmonic: conducted by Libor Pešek in works by Dvořák, Szymanowski and Brahms. With violin soloist Raphael Oleg; Sep 8
● European Union Youth Orchestra: conducted by Vladimir Ashkenazy in works by Berg and Strauss. With soprano Barbara Bonney; Sep 5
● London Symphony Orchestra and Chorus: conducted by Colin Davis in works by Beethoven (arr. Colin Davis and David Matthews) and Tippett. With soloists including bass John Tomlinson; Sep 6

EXHIBITIONS
Hayward Gallery
Tel: 44-171-261 0127
www.hayward-gallery.org.uk
Bruce Nauman: spanning the career of the American artist, b.1941, this exhibition focuses on his relationship with language, and includes sound and video installations as well as neon pieces like One hundred live and die (1984); to Sep 6, then transferring to Helsinki

Tate Gallery
Tel: 44-171-887 8000
Patrick Heron: b.1920, Heron is one of the leading figures of 20th century British art. He led the development of abstract art in Britain with his stripe paintings produced in the 1950s. This display includes around 80 paintings, from the 1930s to the present; to Sep 6

LUCERNE

CONCERTS
International Festival of Music
Tel: 41-41-226 4400
www.LuceneMusic.ch/
● Amsterdam Baroque Orchestra: Ton Koopman conducts works by Mozart. With soprano Lisa Larsson, contralto Elisabeth von Magnus, tenor Paul Agnew and bass Klaus Mertens; Sep 6
● BBC Symphony Orchestra: Andrew Davis conducts works by Ravel, Mozart, Walton and Elgar. With pianist Richard Goode; Sep 7
● Leipzig Gewandhaus Orchestra: in works by Honegger and Bruckner. The conductor is Herbert Blomstedt; Sep 8
● Los Angeles Philharmonic: conducted by Esa-Pekka Salonen in works by Copland, Salonen and Stravinsky; Sep 3
● Los Angeles Philharmonic: conducted by Esa-Pekka Salonen in works by Strauss and Bruckner. With soprano Gundula Janowitz; Sep 4
● Royal Concertgebouw Orchestra: conducted by Riccardo Chailly in works by Debussy and Varèse. With soprano Sarah Leonard; Sep 5

NEW YORK

EXHIBITIONS
Guggenheim Museum
Tel: 1-212-423 3500
www.guggenheim.org
● Peggy Guggenheim: A Centennial Celebration. To mark the 100th anniversary of Peggy Guggenheim's birth, the museum has organised a display of paintings and sculptures from her collection; to Sep 2
● Vilhelm Hammershoi (1864-1916): Danish Painter of Solitude and Light. Retrospective seen in Copenhagen and Paris last year, comprising 60 works by this relatively unknown contemporary of Munch. Includes portraits and landscapes as well as interiors, many of which depict the rooms of the artist's Copenhagen home; to Sep 7

Metropolitan Museum of Art
Tel: 1-212-879 5500
www.metmuseum.org
Sir Edward Burne-Jones: first American exhibition devoted to the 19th-century British artist, comprising more than 200 works; to Sep 6

TURIN

CONCERT
Lingotto Fiere
Los Angeles Philharmonic: conducted by Esa-Pekka Salonen in works by Schoenberg and Bruckner; Sep 7

TV AND RADIO

● **WORLD SERVICE**
BBC World Service radio for Europe can be received in western Europe on medium wave 648 kHZ (463m)

EUROPEAN CABLE AND SATELLITE BUSINESS TV
● **CNN International**
Monday to Friday, GMT:
06.30: *Moneyline with Lou Dobbs*
13.30: *Business Asia*
19.30: *World Business Today*
22.00: *World Business Today Update*

● **Business/Market Reports:**
05:07; 06:07; 07:07; 08:20; 09:20; 10:20; 11:20; 11:32; 12:20; 13:20; 14:20.

At 08:20 Tanya Beckett of FTTV reports live from LIFFE as the London market opens.

COMMENT & ANALYSIS

How bad can it get?

Chrystia Freeland examines the spread of Russia's financial crisis into the real economy and asks whether this could provoke a popular uprising

As he drives around Moscow today, Bill Clinton, the US president, will still be able to see relics of the economic transformation which, until the spectacular collapse of the past few weeks, had been hailed by Washington as a major foreign policy success.

Shiny foreign cars choke the city's main streets, designer clothes adorn brightly lit shop windows and colourful billboards cater to the ostentatious tastes of the nouveaux riches. It might be a bit vulgar and a bit wild, but it is an infinite improvement on the Soviet era and a sign that, at least in Moscow, the market economy had taken hold.

Now, even that is in doubt as the country's mounting financial crisis eats into the real economy. Bank machines, one of the more visible achievements of the new, sophisticated Russia, no longer dispense cash and credit cards are no longer accepted as many banks close their doors. More worryingly, this is being followed by an erosion of the economic basics, as shop shelves empty and cash drains from the economy.

Add to that the immense political uncertainty caused by President Boris Yeltsin's sacking of his government, and suddenly nightmare scenarios are being raised as serious possibilities. Could the political and economic crisis lead to the rise of a military dictator, or the collapse of the country into feuding regional fiefdoms? How quickly is economic collapse likely to spread, and might this provoke Russia's long-suffering population in popular revolt?

Certainly, what began as a rather esoteric financial crisis has swiftly spun into a broader economic meltdown, throwing the currency into limbo, paralysing the banking system and blocking the delivery of goods and services. As if this were not enough, things will probably get worse before they get better. The devaluation of the rouble and a wave of soft central bank credits mean that a sharp jump in inflation – to an annualised rate of 30 per cent at least – is inevitable. Even more extreme price increases, approaching hyperinflation, could be in store if the government gives in to widespread pressure to release more soft money.

"This crisis is extremely serious because it touches on every aspect of the Russian economy," argues Sergei Markov, director of the Institute of Political Studies, a Moscow-based thinktank. "It is a currency crisis – the rouble has devalued. It is a capital markets crisis – the financial markets are dead. It is a crisis of investor confidence in Russia. And, most fundamentally, it is a crisis of the real economy – Russia doesn't work."

The real economy is key to the way Russia's drama will unfold. And the news is not good. After nearly a decade of haphazard reform, Russia's capitalism was only half-finished. Now, this fragile market economy is being battered from all sides.

Already, the problems are visible on Moscow's shop shelves. At Marina, a grocery store in the centre of the city, the meat shelf is almost bare. Uncertain how to price goods because of the rouble's volatility and wary that the crumbling banking system will fail to deliver payments, the three Moscow-region meat-packing plants that supply Marina have this week refused to deliver.

"No one at the meat-packing plants even answers the phone," says Mikhail Borisovich, the store's manager. "They are afraid to sell. They don't know what price to charge, so they've just vanished. We have the same problem with many of our imported goods, like frozen foods. Our distributors have simply stopped shipment. They are waiting for the situation to stabilise."

Even big western consumer goods companies are feeling the squeeze. Unilever, which produces deodorant, shampoo, margarine and salad dressing in Russia for the domestic market, said this week that orders for its goods had almost dried up as distributors stopped ordering goods.

The same pressures are battering the manufacturing sector. Companies which had divined how to keep afloat in Russia's swamp of non-payments and barter are finding that their access to cash – what Russians call "live money" – is drying up altogether.

"For all the arrears and barter, we had a financial plan and we counted on receiving a bit of real money," says Kakha Bendukidze, owner of several Russian factories, including Uralmash, one of the country's biggest machine-building plants. "Now the plan has broken down because money has vanished from the country. The metallurgical plants or oil companies which bought our machines lost their money in treasury bills or banks and so now they cannot pay us."

The deterioration of Russia's already shaky economy cries out for forceful government action. But Russia's political system has proven to be just as weak as the country's economic foundations. Within days of the start of the financial crisis, Mr Yeltsin sacked the government, plunging the country into a political vacuum.

This has undermined all three branches of federal authority at once, leaving Mr Clinton unsure as to who really holds the reins of power. The president faces calls for his resignation and the threat of impeachment. The parliament risks being dissolved. And the government, denied legislative approval this week, barely exists at all.

As the powerbrokers quarrel in Moscow, the authority of the state continues to crumble. The Kremlin's ability to collect taxes, one of the defining qualities of a national government, has been feeble for years and is one of the causes of the economic turbulence in the first place. Now, it is weakening still further as the sclerosis of the banking system makes it physically even harder to collect taxes.

This practical problem is compounded by a psychological one. Humbled by the financial crisis and riven by infighting, the federal government is fast losing its political authority across the country. Regional leaders, who have long been reluctant to surrender locally collected revenues to Moscow, are daring outright defiance.

Last week, for example, the leader of Yakutia, a resource-rich Siberian province, banned local gold producers from sending the precious metal to Moscow, ordering them to store it in the local government's vaults instead.

Feuding at the top, weak state institutions, an economy that could be slipping into hyperinflation – this looks like a textbook recipe for popular revolution, or at least a palace coup. Even a senior Kremlin official this week warned that Russia could be on the brink of a "popular uprising".

It is a tempting argument to make. Russian workers, unpaid for months, had begun to take direct action even before the crisis. This spring, irate coalminers repeatedly blocked railway lines to protest over wage arrears. In depressed cities such as the far-eastern port of Vladivostok, strikes and demonstrations by public sector workers, ranging from teachers to ambulance staff, have become a weekly event. Underpaid and sometimes underfed, individual soldiers have taken to shooting their commanding officers.

The ranks of this mob of unpaid workers and angry conscripts have now been swollen by a middle class whose savings were eradicated by last month's rouble devaluation and banking crisis.

And if, as in Albania after the collapse of the pyramid schemes, this financial blow finally breaks the legendary patience of the Russian people, a popular revolt will have no shortage of Bonapartes. Alexander Lebed, the former general turned Siberian governor, Yuri Luzhkov, the energetic mayor of Moscow, and a host of obscure nationalist and communist hardliners are all but openly auditioning for the job.

But if Mr Lebed or Mr Luzhkov ever make it to the Kremlin, it is more likely to be through the ballot box than on the back of another Russian revolution. Although Russians certainly have cause to protest, several factors make it unlikely that the complaints of ordinary people will unseat the current establishment.

For one thing, in contrast with Indonesia, where student and Islamic groups mobilised a disaffected populace, or Imperial Russia, where the Bolshevik party machine channelled popular unrest, Russia lacks national organisations able to transform amorphous discontent into political change.

Another obstacle to outright revolution is the talents and resources of Russia's economic establishment. The country's biggest businessmen used their political skills and control of the airwaves to persuade a reluctant Russia to re-elect Mr Yeltsin in 1996. Those same structures will today be deployed to prevent a total overthrow of Russia's current rulers.

Finally, in a country as large as Russia, revolutions are won and lost in the capital city. And even though the coming wave of inflation and shortages will make Moscow a bit greyer than it has been recently, for now, Muscovites are too comfortable to make good revolutionaries.

Even the soggy coalminers camped outside the White House, the government building in Moscow, admit a revolt is unlikely. Many Muscovites, they say, sympathise with the ferocious declarations of the red banners decorating their camp – "All Our Ministers Are Bastards!", "Yeltsin, Resign!" – but they are unlikely to help overthrow the establishment.

"We are standing here, trying to wake up Russia, but it is very hard to do," says Ramil Gashygalin, a miner from the far northern city of Vorkuta who has been camped outside the White House for nearly three months. "Moscow will never wake up. It's too calm, people live too well. And as for the rest of Russia, well, it's a big place and it's hard to make ourselves heard."

LETTERS TO THE EDITOR

West must abandon this bloodless colonialism

From V. Anantha-Nageswaren.

Sir, Martin Wolf's article "Threats of depression" (August 26) raises a few interesting questions. First, it shows up the misplaced inflation concerns of central bankers in the US and in the UK. Not that there is no risk of higher inflation in these two economies, but there are more pressing and calamitous risks than merely seeing inflation rise from 1.5 to, say, 2.5 per cent. Second, if equity markets in the west do hold up and thus prevent their economies from collapsing, it would merely underscore the dramatic widening of the economic gulf between the west and the developing economies within a span of 12 months.

When per capita income (measured in US dollars) sinks tenfold as it did in Indonesia and western economies benefit from rock-bottom commodity prices, low inflation and interest rates, it ought to result in a serious re-examination of business practices (of lending institutions), economic policies (international trade and capital market liberalisation) and the sequencing of economic reforms pursued by the International Monetary Fund at the behest of its major shareholders. It is well-known that political stability and institutional framework, prudent and well-functioning fiscal and monetary policies and a well-regulated and capitalised banking system and efficient capital markets are preconditions for a country to enjoy the benefits and withstand the pains of open capital markets. Would it not have been, therefore, prudent for the IMF to ensure that these were put in place before it pushed through financial liberalisation in developing countries with a fanatical zeal?

Western lenders lend recklessly in good times and, when the loans fail, they are bailed out, stringent and contractory conditions are imposed on the borrowing governments, asset prices collapse and a vast majority of the population is made poorer. Foreign investors then walk into markets prised open for them by the IMF and pick up assets cheaply. This modern, bloodless colonialism is very neat.

If there is some truth in the above analysis, the implications for western monetary policymakers are obvious. They should, at least temporarily, abandon chasing the ghost of inflation. This would allow their economies to grow and be able to absorb imports from countries looking to export their way out of trouble. The IMF should roll back some of its absurdly stringent conditions imposed on borrowing governments, abandon its insistence on capital market liberalisation in the borrowing countries, work to strengthen institutional mechanisms and other preconditions necessary for economies to benefit from open capital flows.

Western investors should respect local sensitivities as they acquire assets cheaply in emerging markets. Their governments should resist calls for protectionism at home when cheaper goods from the recovering economies start arriving. If they all ignore this advice, their children may read in their history books that the triumph of capitalism over communism lasted only for a brief period in the last decade of the 20th century.

V. Anantha-Nageswaren,
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Switzerland

BA best placed for risks

From Mr Nick Rouse.

Sir, Lex suggests ("British Airways/Airbus", August 26) that BA's aim in negotiating its deal for new aircraft includes shifting the risk of ownership back towards the supplier. This reflects an increasing trend for businesses to avoid the risks of ownership of assets, notably through passing the risk to financial institutions through various types of operating lease. But is this sensible from the point of view of particular businesses or as a method of handling the risk more generally?

It is a good axiom of risk management that risks are best taken by the person with the greatest knowledge and ability to control them. In this way the costs of hedging such risks are kept to a minimum, as someone who does not understand the risk ought to extract a high price to cover for situations that could go wrong.

In the case of BA, there is a strong case for saying that, as a leading user of aircraft, BA is in the best position to manage the risks of ownership. Not only will it understand what is driving future residual values, it is also in a position to time the sale of second-hand aircraft by using them a little bit longer or shorter to ensure that they are sold into the best marketplace. Suppliers or financial institutions cannot do this anything like as easily as a user.

Moreover, BA gives up not only the risks of ownership but also the rewards from getting the timing right to sell aircraft at a profit. It may well be that BA is seeking to negotiate a share of any upside in residual values, but theoretically at least this should only push up the cost of paying for the risk being taken by the suppliers.

Nick Rouse,
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Ads on the internet can produce a click-through rate to die for

From Mr Ray Taylor.

Sir, "Net ads fail the soap test" (August 28) expresses the view that internet advertising banners "rarely attract more than a glance". One wonders, then, why the Financial Times continues to offer internet advertising services on its own web site, *ft.com*.

There is no evidence quoted to illustrate points such as: "Even banner ads for exciting, internet-related products and services produce lamentably few clicks." In fact, a good internet advertising campaign will typically produce click-through rates of between 1 and 5 per cent – the kind of response direct marketers would die for.

The truth is that a properly managed internet advertising campaign can produce very good response from the right kind of audience. True, the medium is highly experimental when compared with established media. But it is already the fastest-growing new medium of all time.

Ray Taylor,
director,
NMC/Adplan,
77 Stanhope Grove,
Beckenham, Kent, UK

Consultants with a prior claim

From Jan Harrington.

Sir, Lucy Kellaway claims that Florence Nightingale was the world's first management consultant (August 31). I think the following are earlier candidates with at least as good a claim: Sun Tsu, whose book *The Art of Warfare* is still a bestseller, and Machiavelli, whose book *The Prince* is full of management consulting ideas.

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هكذا من الاصل

FINANCIAL TIMES

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Wednesday September 2 1998

Controlling capital flows

Malaysia yesterday introduced wide-ranging capital controls, which effectively withdrew the ringgit from the international financial system. Along with the Hong Kong government's recent intervention in the stock market, this could be the beginning of a backlash against the mantra of free markets. A major rethink of attitudes towards capital flows is therefore urgently needed.

Capital controls have become dirty words in today's economic orthodoxy. But as the crisis in south-east Asia showed, unfettered movement of capital can have devastating effects. In the face of such difficulties, China might be considered as an example of the advantages of controls. It has all the signs of vulnerability to speculative currency attack: a faltering economy, closely linked to the rest of Asia; a banking system riddled with bad debt; and widespread corruption. Yet it has maintained its currency peg whilst reducing interest rates, thanks to the non-convertibility of the renminbi.

Capital controls allow the delinking of domestic monetary policy from exchange rate movements. Under certain conditions, this could prove a way forward for the Asian crisis economies. These countries have an urgent need to restructure their banking sectors, whilst maintaining tight monetary policies in order to keep their currencies stable. But these two policies do not sit easily together. It is difficult to organise a large-scale bank restructuring when any extra liquidity leaks out of the country. Controls on short-term capital would give these countries greater monetary flexibility, making banking sector reform easier. Lower interest rates would also give a welcome short-term boost to growth.

Argument for controls

This is an argument for temporary capital controls in time of crisis. More radically, some economists say controls on short-term capital should be a standard part of policy for emerging markets, in order to avoid the destabilising capital inflows and outflows that were at the heart of the Asian crisis.

Attractive as this sounds, capital controls are far from a panacea: there are good reasons why they have fallen out of popularity. If they are to be used, it must be for the right reasons, and be subject to strict conditions. Three factors must be considered. First, any controls must be limited to short-term capital flows, and must not be extended to longer-term flows such as direct investment, which are essential to growth in developing countries. Care must also be taken that restrictions which target short-term flows are not so complicated that they discourage long-term investment.

The simpler, the better

Second, capital controls are often subject to avoidance, distortion and corruption. Generally, the simpler controls can be made, the better.

Third, and most important, capital controls must be used to assist reforms, not to avoid them. The discipline of the financial markets, however unfair, has at least forced some governments into taking actions that might otherwise never have happened. Capital controls are a double-edged sword. They create better conditions for reform, but they lessen the incentive to undertake it, by reducing the costs of doing nothing.

It remains to be seen which course Malaysia will take. But the indications are not good. Mahathir Mohamad, the prime minister, has shown little enthusiasm for the restructuring that Malaysia clearly needs. His comment yesterday that the capital controls would allow the government to relax the criterion for non-performing loans was hardly a sign of a change of heart.

The issue of how to deal with short-term capital flows is now one of the most pressing on the international economic agenda. The International Monetary Fund/World Bank Annual Meeting, which starts this month, must start to consider the uncomfortable possibility that in some cases, and under strict conditions, capital controls could indeed be the least-bad option.

The challenge for the ECB

Central bankers do not like surprises. European policymakers had been looking forward to a comfortable launch of the euro next January. When 11 countries including Italy signed up for the single currency in May, the talk was of a European boom, not a global recession.

Four months on, the economic prospects look very different. Yet despite Russia's collapse, Asia's financial crisis, signs of contagion in Latin America and a sharp fall in stock markets across the world, the European Central Bank is still sanguine about the launch of the euro in January 1999. The governing body of the ECB did not change its official agenda at this week's meeting, although it did discuss the Russian crisis. Largely, it stuck with housekeeping issues.

Russia's collapse, so much closer to home than that of Asia, has spread anxiety in Europe's financial markets. There was minor speculation against the lira last week. Spreads between German and both French and Italian bonds have widened following Russia's default and devaluation. There has been a flight to quality.

But talk of delaying the launch of the euro is completely misplaced. Delay would create a financial maelstrom, which would very likely engulf the whole project. It would take an inconceivable reversal for Europe's leaders to cancel a project in which they have invested so much political capital.

If anything, turbulence in the world economy has strengthened European politicians' resolve for Emu. Currency turmoil in Denmark, Sweden and Norway – outside the euro-bloc – is far greater than the recent mild tremor in Italy.

Sense of perspective

Moreover, it is important to keep the effects of the current trouble on Europe's economy in perspective. True, Asia's crisis will reduce significantly European exports to the region. However, the ECB appears confident that the deterioration in external balances will not be enough to slow growth in the euro-zone next year much below forecasts of 2.5 per cent. This would certainly not cause European governments to collide with the fiscal deficit limits agreed in the Maastricht treaty.

Too soon to ease

Nevertheless, the change in world conditions has prompted US central bankers to contemplate easing monetary policy. Should their counterparts in Europe do the same? The answer is: not yet.

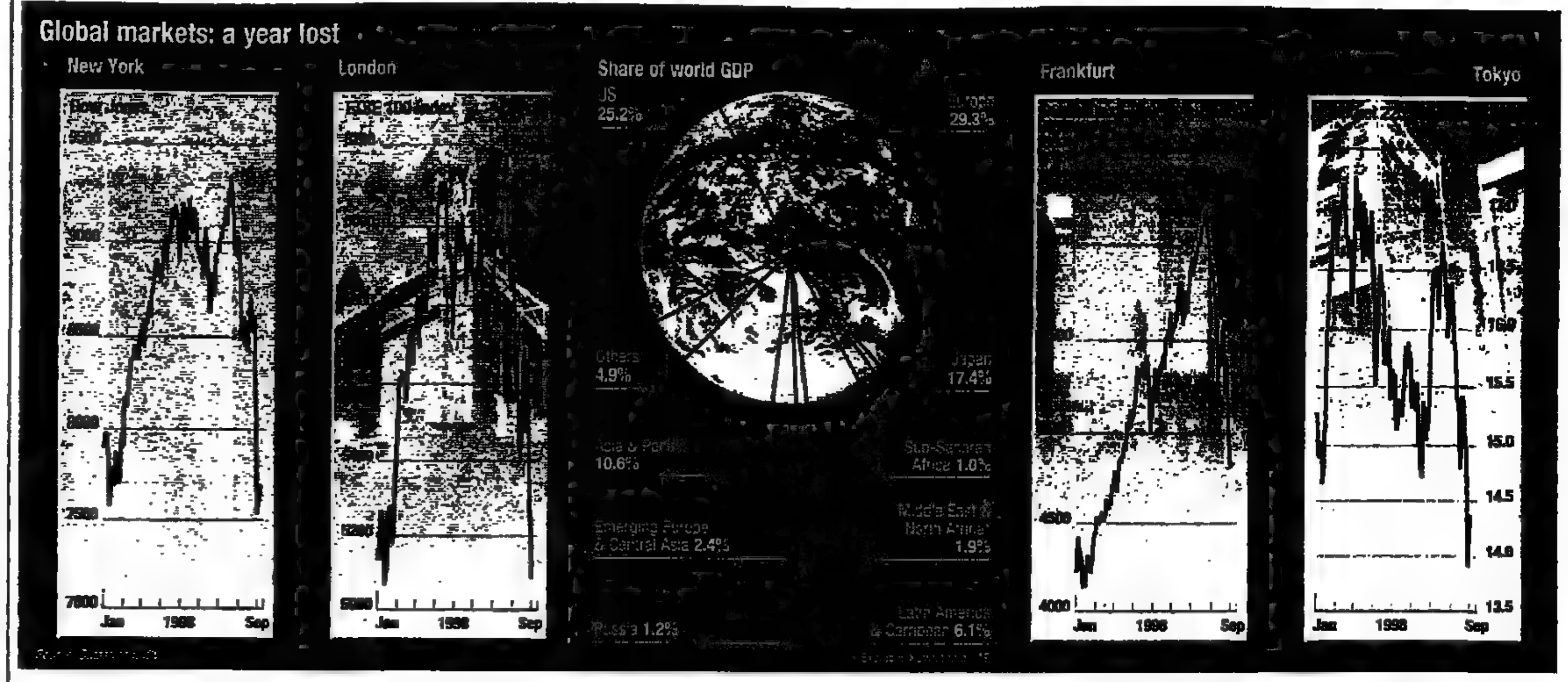
European central bankers are unlikely to cut rates in anticipation of imported deflation or to offset falling equity markets. The economic effects of falling European markets are less serious than those of a big drop on Wall Street. Far more household wealth is held in equities in the US than in Europe. Before acting on interest rates, the ECB would require tangible evidence that falling stock markets were affecting the real economy.

As things stand, the ECB will not be dismayed by the current correction. European stock markets are still well up from the start of the year. Although the wealth effect in Europe is limited, the fall in equities will also bear down on European inflation, which on present forecasts is expected to be less than 2 per cent next year.

Europe's central bankers face a delicate task in the next few months. They need to achieve convergence in interest rates in line with the Maastricht process, against the grain of a turbulent market.

But when it takes over in January, the ECB's job will be even harder. It will have to balance the need to establish credibility against wider responsibilities to the world economy.

Europe is now in only its second year of recovery. The risk is that the ECB, by seeking to be more orthodox than the Bundesbank, will snuff out demand. This would be a terrible error. World deflation remains as great a risk as European inflation. The ECB needs to ensure that Europe is in a position to take over as the engine of world growth if the US falters.



Severe and risky correction

Richard Waters, Gerard Baker and **Philip Coggan** look at the reasons behind two days of stock market volatility and consider whether this could turn a slowdown into a slump

It was a day of wildly gyrating share prices after a 500-point fall on Wall Street the day before. Since its peak on July 17, the Dow Jones Industrial Average has fallen by nearly a fifth and has lost all its gains this year. Some European equity markets – notably Frankfurt, Madrid and Zurich – have also experienced 20 per cent slides from their July highs.

Is this the end of a correction, a point from which shares can resume their climb? Or the start of something worse, a full-scale reversal of the bull market of the past decade?

If this is a correction, the effects could be relatively modest. The Organisation for Economic Co-operation and Development has estimated that a 20 per cent fall in the stock market would reduce the growth of US gross domestic product by only 0.2 percentage points in the first year and the growth in European gross domestic product by 0.1 points. In the second year, US growth would be 0.6 per cent lower and Europe's 0.2 per cent.

But if it is the beginning of a bear market, there are big implications for everything from public policy to private pensions and from the US to emerging markets.

Policy would be affected because, if Americans began to save more as a result of losses on Wall Street, the result (other things being equal) would be a fall in US public savings – that is a rise in the budget deficit, leading to higher interest rates. A prolonged bear market would also affect pensions and other financial instruments; the way in these are financed would have to change in an environment without high-risk, high reward assets.

At the moment, many market participants appear to believe that the fall is still a correction, rather than something worse. The volatility in share prices yesterday suggests that few investors are ready to call the turn yet. "We had a lot of the panic selling yesterday – but we probably haven't had a classic selling climax yet," says Jeffrey Applegate, equity market strategist at Lehman Brothers and one of the biggest champions of the bull market.

On this view, what is happening is that the perception of risk has returned to the stock market with a vengeance. In the spring, the supposedly "perfect" combination of a US economy powering ahead and an Asian slump that was taking the edge off global inflation meant that Wall Street had set aside many of its fears. The classic measures of financial market risk – corporate bond spreads and the risk premium that investors had traditionally demanded for owning stocks rather than bonds – had fallen to almost nothing.

The sense of risk has been creeping back into the credit markets for some time. The yield spread on corporate bonds (the difference between what the Federal government and US companies pay to borrow in the bond market, and the best measure of perceived corporate credit risk) has been widening steadily.

Now it has returned to the stock market too. The immediate reason is Russia, and two broader worries that events in Russia have crystallised.

One is the potential damage from a shock to the world's financial system. Lack of liquidity in the emerging markets and credit losses have a way of feeding on themselves, creating a vicious circle of collapsing credit that has already consumed the Asian banking system and is bruising banks in Europe and the US.

The other is the danger that the market crisis may propel the global economy into a recession, with a severe impact on corporate profits. "There's a big risk creeping into the global economy, at a time when there's no leadership coming out of Washington, Tokyo or Moscow," says Ed Yardeni, chief economist at Deutsche Bank Securities.

As the perception of risk has risen, Wall Street's attention has shifted back on to the uncertain outlook for American companies, hitting share prices from two directions at once.

The rising risk premium is eating into companies' price/earnings multiples, dragging them back from their historic highs. Shares in the Standard & Poor's 500 index, which were trading at more than 23 times their future earnings as recently as last month, can now be bought for a multiple of 18 times – a considerable deflation, though still higher than the long-term norm. At the same time, concern about corporate profits has been mounting steadily for some time, also chewing away at share prices.

That marks one important difference with the stock market correction of 1987. At that time, earnings prospects were improving says Mr Yardeni. The global economic growth that followed the market disruption provided the backdrop for a steady increase in profits.

This time around, the outlook is flat or getting worse. "We've had some pretty brutal profit declines" for oil and other commodity-based companies, as well as the technology companies that were looking to Asia as a source of profits, says Dick Hoey, an equity fund manager at Dreyfus, a US mutual fund group.

On this basis, it seems unlikely the US market will bounce back soon. Equally, there will not necessarily be a broad collapse in earnings and share prices, either. According to Mr Applegate, around 90 per cent of US corporate profits are earned at home or in western Europe. That would suggest that the financial and economic contagion in international markets will have only a limited effect, and that the bottom has already been reached for US share prices.

But that depends critically on the real economy and, in particular, on whether the fall in share prices might itself result in lower economic activity.

Economists have fretted for some time that the domestic US economy has become much more vulnerable to a significant decline in equity prices. According to the OECD, equities are 39 per cent of US personal sector net wealth, compared with 8 per cent in Germany and 13 per cent in France.

> 'The negative wealth effect could be greater than the positive effect by a factor of two'

Widening share ownership – by some measures, more than half the population is now directly exposed to the stock market – has heightened the sensitivity of domestic spending to a market slump.

If an extended fall in share prices were to depress demand at home over the next year, the implications for the rest of the world would be chilling. The US, which accounts for a fifth of global demand, has been the principal support for world growth as recession has spread to other regions over the past year. If that US prop is about to be kicked away, the recent talk of a global depression may not seem far-fetched.

In fact, the equity market turmoil of the past week is only a part of the much broader pattern that makes up the US economy. For the past year, domestic demand has been remarkably strong. The long bull market has been an important, but by no means the only, element in that. Also fuelling demand have been low unemployment, accelerating wage growth, falling long-term interest rates, and a steep drop in commodity prices.

On the negative side have been the trade effects of the international turmoil, fiscal policy, which has been getting steadily tighter as the federal budget deficit has gradually disappeared, and, more recently, the sharp slowdown in profits growth.

Because of these problems, almost all economists expect domestic demand growth to slow somewhat, as the Asian effect increases and the hit from profits affects investment. The question is whether the falling stock market will turn that expected slowdown into a recession.

Conventional estimates by economists at the Fed and elsewhere suggest that consumers spend about 3 to 5 per cent of any gains they make when asset values appreciate – the so-called "wealth effect" on consumption.

In the past three years, the equity market has added roughly $4,500bn to total household wealth. That would suggest the bull market has boosted consumer spending by as much as $225bn over three years, or a little over 1 per cent of GDP.

Even if the stock market decline were to continue and wipe out all of the gains of the past three years – which would mean a further 30 per cent or more decline from today's values – the loss of 1 per cent of GDP would be serious, but not catastrophic.

The doubt is whether such a big share price decline could stop there. Some economists argue that the negative impact of a 50 per cent decline would be greater than the positive impact of a 50 per cent rise. This is because much of the investment has been in the form of provision for retirement by Americans now approaching pensionable age.

As Stephen Roach, chief economist at Morgan Stanley Dean Witter argues, that makes the average investor likely to be more cautious following a decline. "The negative wealth effect could well be greater than the positive effect by a factor of as much as two," he says.

Furthermore, the financial condition of the private sector overall, including corporations, is not healthy. As Wynne Godley, an economist at the David Levy Institute in New York, has pointed out, the US private sector financial deficit is larger than it has ever been. Personal savings are close to zero and overall the private sector is running a big deficit. A sustained market downturn could force individuals and companies to retrench substantially.

In short, the immediate impact of a falling market may be small in a moderately vibrant economy. But if the market fall is sustained, the outlook could get much grimmer.

Where does this leave policy?

Many economists believe the Federal Reserve must now cut interest rates. They say that, while the immediate effects of the market trauma may be limited so far, the outlook is getting increasingly gloomy. International turmoil is creating a risk of a slump, they say , and with inflation virtually absent from the US economy, the central bank needs to show itself ready to ward off a catastrophe – perhaps as part of an internationally co-ordinated effort.

The Fed remains watchful but not yet ready to come to the rescue of world markets. While there are concerns about both the causes and the effects of the current instability, US growth is still buoyant and some policymakers fear a precipitate cut in rates could lead to an unhelpful resurgence in equity prices and inflationary pressures. Another big drop, of course, and that view would almost certainly change.

OBSERVER

Labor candidate goes with the flow

The southern Sydney marginal seat of Hughes should provide one of the more entertaining contests in the Australian election campaign.

Voters have spent much of the last couple of months boiling water to make it safe to drink and Labor candidate David Hill can expect a few questions about why the city which is hosting the Olympic Games in 2000 can't seem to manage a reliable supply of clean water. Even now, a week after the second water warning, Sydneysiders have been told only that it's "probably" safe to drink the stuff that comes out of their taps.

Hill should have some answers – he has just quit as chairman of Sydney Water. Given the current popularity of the state-owned purveyor of H_2O, he might have been better off finding another city to run in.

The whole affair has been a public relations disaster for Sydney. Just days after Australia's flagship city topped a US poll of tourist destinations, 4m residents were told to boil their tap water.

After a week, Sydney Water gave the all-clear – only to announce shamefacedly last week that contamination by cryptosporidium and giardia parasites was even worse than before. Hundreds claimed to have suffered sickness, and this week companies launched lawsuits claiming loss of business.

Sydneysiders are now studying reports on the extensive foreign travel undertaken by Sydney Water officials in the past year – a total of 136 overseas trips by about 30 executives to destinations including France, Scotland, California, Italy and Thailand.

All that burning up of jet fuel didn't avert the water pollution, but Sydney Water is putting a brave face on it. When the bugs bit, it says, the valiant voyagers knew just which foreign specialists to call for help.

Moral high ground

Not everyone in Moscow is pleased to see Bill Clinton, but the US president isn't likely to be greatly disturbed by the less than gracious welcome he was accorded in the Duma, the Russian parliament, as he jetted in for his summit with Boris Yeltsin.

Vladimir Zhirinovsky, leader of a political party that lurks on the outer fringes of nationalism, told deputies the saxophone-playing president's visit was "untimely, especially considering his recent moral scandal". He advised Clinton to go home, abandon Hillary and marry Monica Lewinsky.

"We, as individuals with high moral character, would prefer not to meet a person who still can't sort out his relationship with his secretary," he added.

The Duma may have derived some amusement from Zhirinovsky's high moral tone. After all, unlike the Russian politician, Clinton hasn't been filmed beating up a female deputy on the floor of parliament. Not has he boasted about infidelity or made a film in which he cavorts with naked women. If he had, Kenneth Starr would have mentioned it.

In the money

The birth of Europe's single currency may still be four months away but Axel Springer, the German newspaper combine, is getting its shot at the euro in early with the launch next month of the business weekly *Euro am Sonntag*.

The choice of name seems a brave one. While most Germans are resigned to the arrival of the euro they have not yet learned to love it as much as the dear old D-Mark. But it does raise a question for other publishers. What, if anything, happens to the title of the popular magazine DM once the D-Mark is no more?

Stealth bomber

If Sudan really is part of a high-tech "global terrorist network", as the US claims, it has a bit of catching up to do. Further details have emerged of the American cruise missile attack on an alleged chemical weapons factory on August 20.

Over quiche lorraine and chocolate cake at a tea party in Khartoum, a senior minister said Sudan had had no idea that it was under attack until the missiles were over the city. The country has only two radar sites.

But the radar at Khartoum airport has a range of 200 miles. It isn't much, but surely it would have been enough to give some warning. "In theory, yes," said the minister. "The problem was that that night the radar was not working. There was a power cut."

Congo line

Disgruntled Canadian businessman Robert Stewart has been at the non-aligned summit in Durban, South Africa, sharing with journalists at his frustrations about doing business in Laurent Kabila's Congo.

Stewart, now advising an opposition group he hopes will be kinder to his mining interests, recalls going along with the then finance minister Mwana Nanga Mawampanga when he dropped in on World Bank chief James Wolfensohn last year.

Mawampanga went for the dismissive approach: "I don't need the World Bank." Wolfensohn replied: "Yeah, you may not need us. But you owe us $13bn – and we need you."

The Financial Times

100 years ago

Economic Troubles in Russia

The epoch-making pronunciamento of the Czar, urging the wisdom of universal disarmament, has not unnaturally aroused a good deal of interest in the economic conditions obtaining at the present time in His Imperial Majesty's far-reaching dominions. Cynics have suggested that the startling memorandum was inspired by the knowledge that a continuance of military expenditure on the present scale would spell grave embarrassment in Russian financial circles within a comparatively short time.

50 years ago

French Cabinet Talks

Paris, Sept. 1. French Premier-Designate M. Robert Schuman, approved by a narrow majority in the National Assembly, continued Cabinet-forming talks with party leaders to-night, but did not expect to end them before to-morrow. This afternoon he said that it was not in his mind "for the time being" to try to form a Government entirely from his own party. The Socialist parliamentary group, whose opposition brought down the last two Cabinets, met twice to-day to decide their attitude.

FINANCIAL TIMES

WEDNESDAY SEPTEMBER 2 1998

THE LEX COLUMN

D for dominoes

The slide in global markets may have come to a temporary halt. But they are still haunted by three "Ds" – default, dominoes and deflation.

Yesterday Malaysia ratcheted these fears up a notch by imposing exchange controls. In itself, the Malaysian economy (like Russia's) is too tiny to have much direct impact on Europe or the US. The concern, rather, is that it could trigger copycat action in other emerging markets – particularly with respected academics like MIT's Professor Paul Krugman advocating capital controls.

Malaysia is, in effect, telling shareholders that their money is trapped for a year. That is not quite as bad as Russia's defaulting on its debts, but it comes a close second. Investors, such as hedge funds, needing to sell Malaysian stocks to meet margin calls will not be able to do so.

Moreover, now that even Hong Kong is fiddling with the operation of free markets, policy measures that only a few weeks ago would have been unthinkable cannot be completely discounted. The probable effect will be to accelerate the capital flight from emerging markets.

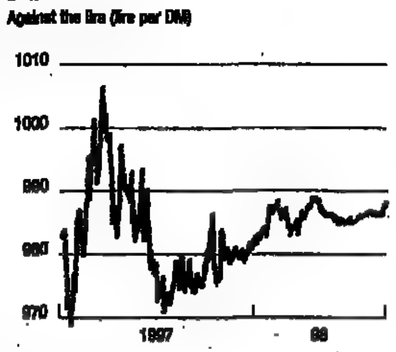
Default

Losses by hedge funds or banks are, in themselves, no reason to weep. It could teach them the welcome lesson that they cannot rely on the International Monetary Fund to bail them out of difficulties. The snag is that defaults by hedge funds or, even worse, banks would raise the spectre of contagion spreading to the heart of the developed world.

The red flag was raised over Hong Kong yesterday when several of the territory's banks were downgraded by credit rating agencies. With high capital adequacy ratios and a low level of non-performing loans, there is no immediate danger. But asset prices are still falling and the credit crunch is triggering more business failures.

Banks in the UK and the US are still less vulnerable, since bank balance sheets are strong after several years of good profitability. They may be losing money: Britain's Barclays Bank, for example, yesterday revealed £250m losses in Russia and another £75m elsewhere. But that is still small beer in the context of its £20bn market capitalisation.

D-Mark
Against the lira (lire per DM)



Source: Datastream/ICV

Continental European banks look more exposed. German banks, for example, have large loans out to Russia. But a high proportion of these is covered by the state-backed Hermes insurance scheme.

That said, there is still a chance that a second-tier bank somewhere in Europe could find itself caught short. Normally, that would not matter too much – the responsible central bank could either provide liquidity to the struggling bank or close it down and provide liquidity to the rest of the system. Unfortunately, in the current interregnum before economic and monetary union, it is not clear who would act as a lender of last resort. With luck, Europe's central bank governors will have put in place some contigency plan at their meeting yesterday.

The global turmoil has also raised new questions about whether the Emu project itself could be vulnerable. Some jitters are visible in the wobble of the Italian lira versus the D-Mark, but the shift has not been large. Anyway, Europe's central banks have the capacity to defeat any speculative attack – provided political backing for the project remains solid. And, given the buffeting experienced by other economies, the protection afforded by Emu's cordon sanitaire must seem all the more attractive.

Deflation

Though there is little chance of Europe or the US themselves facing a financial crisis, the backdrop is negative. Outright recession or deflation is not at this stage likely. But growth is bound to take a knock.

The biggest concern is in the US. The dangers of a virtuous circle turning vicious are obvious. With the bulk of this year's stock market gains wiped out, US households may choose to curtail spending, hurting the real economy and leading to further falls in equity prices. So far, US retail investors seem to be holding their nerve. The worry is the market's turmoil will bring about a psychological shift in investors' thinking. With fundamentals so uncertain, any significant rally could well trigger widespread selling.

This reverse "wealth effect" is likely to be less in Europe, where stock market investment by private individuals is not as important. Indeed, given Europe's penchant for holding bonds – whose prices have soared – there could conceivably be a positive impact. But that is small comfort. If Wall Street takes another lurch downward, Europe will follow.

M&A

Wall Street's investment bankers must be hanging on to their hats. Most of this year's big all-share mergers are deep under water – with some of them just weeks from closing. Citicorp's stock, for instance, has fallen 27 per cent since it announced its April marriage to Travelers, which is itself down 31 per cent. BancOne and its partner, First Chicago NBD, have each lost more than a third of their value. But as long as their stocks fall in tandem, as most have, the spread between the offer and the target's price is not materially changed. Investors in either company are thus unlikely to press for a renegotiation of terms, unless one party reveals concrete bad news – as happened in the Ciena/Tellabs deal.

Stock market volatility has also closed the market for initial public offerings. But the summer is a quiet period in any case. The real test will come later this autumn, with big offerings like Goldman Sachs and DuPont's Conoco spin-off. Investors will continue to have an appetite for high-quality companies. Prospects for blue-sky technology issues, like internet stocks, are much less certain. But the pricing of all offerings will be affected by the recent turmoil.

Malaysia pulls ringgit out of currency markets

Investors react swiftly as Mahathir imposes draconian controls

By Sheila McNulty in Kuala Lumpur

Mahathir Mohamad, the Malaysian prime minister, imposed stringent currency controls yesterday to pull the ringgit out of international financial markets .

Dr Mahathir also announced draconian restrictions on currency holdings by Malaysian residents and foreigners in an attempt to regain authority over his deteriorating economy.

Foreign investors reacted swiftly, pushing the benchmark stock index down 13 per cent to 262.70 points – almost 80 per cent lower than its pre-crisis peak.

"People can no longer stay with the free-market system," Dr Mahathir said. "The world is not moving ahead, it is moving backward."

Dr Mahathir has banned the trading in ringgit instruments among offshore banks and stopped Malaysian institutions offering domestic credit facilities to non-resident banks and stockbroking companies.

He announced that the M$100m in cash circulating outside the country must be repatriated within one month or it will have no value.

Residents cannot take more than M$10,000 worth of foreign currency out of the country. They require prior approval to make payments to non-residents to invest abroad more than the equivalent of M$10,000 in foreign currency.

Foreigners who sell shares cannot repatriate earnings for a year, Dr Mahathir said. At the same time, travellers cannot bring in or take out more than M$1,000 cash. Payment for all exports and imports must be made in foreign currency.

The currency controls are so comprehensive – and unorthodox – that a row last week over their implementation prompted the resignation of Ahmad Mohamed Don as central bank governor, and that of his deputy, Fong Weng Phak.

The ringgit strengthened as investors rushed to cover short positions, but then trading halted as offshore dealers attempted to determine how they will settle trades under the new system that brings all trading onshore. Offshore banks simply stopped quoting the ringgit.

Economists suspected a fixed exchange rate would come next and Dr Mahathir alluded to it. But the central bank insisted the value of the ringgit would be determined by market forces.

"This is definitely a step backwards," said Paul J. Alapat, senior economist at Indosuez W.I. Carr Securities. "It is an effort to close the doors and reflate the economy."

Some economists suspected the plan might work in the medium term if those with ringgit abroad bring it back instead of converting it into foreign currency, and no more outflows are permitted. But, either way, reforms of the banking and corporate sectors must take place.

"It's not a long-term sustainable solution," said Neil Saker, head of economic research at SG Securities. "Over time, the growth impetus will start fading away."

See Lex
Markets have failed, Page 3
Editorial Comment, Page 11

US government accuses Microsoft of intimidating other sector giants

By Richard Wolffe in Washington and Louise Kehoe in San Francisco

The US government broadened its legal attack on Microsoft yesterday by accusing the world's largest software company of trying to intimidate sector giants to protect its monopoly position.

In court filings published yesterday, the justice department and 20 state attorneys-general shifted their case away from the battle over the marketing of internet software and towards Microsoft's monopoly position in the wider computer industry.

The government said the company had sought to stop Intel, the world's largest microprocessor producer, from developing its own software. It also said Microsoft further attempted to stop Apple, its bitter rival in operating systems, from marketing internet video software in competition with its own.

Microsoft's attempts to win agreements with rivals was "part of a pattern of using its control over the monopoly operating system to make competing products operate, or appear to operate, less effectively", the government said.

The government's arguments mark a turning point in nine years of antitrust investigation of Microsoft and litigation, initially by the Federal Trade Commission and then by the justice department.

In its initial lawsuit, filed in May, the government accused the company of attempting to stifle Netscape Communications, Microsoft's internet software rival.

The government has hesitated to broaden its case, partly because of the difficulty of devising remedies that would prevent continued alleged abuses. A break-up of the company, for example, could have substantial negative effects throughout the US computer industry.

The new allegations come as the government is attempting to bolster its case. However, much of the 86-page document was a response to Microsoft's motion to have the case dismissed as well as the company's arguments concerning its activities in the browser market.

The government also accused Microsoft executives – particularly Bill Gates, its founder – of "an astonishing lack of recall" in interviews about their actions.

Microsoft dismissed the new allegations as "groundless" and said it was "unfortunate that the government had lost faith in the substance of its case and was now resorting to gratuitous name-calling".

"All of our executives have been very co-operative with the government investigators and answered every question to the best of our abilities. It is clear that the facts do not support the government case, so it is not surprising that the government does not want to hear the facts," it said.

Justice department widens net, Page 7

CONTENTS

Rioting youths in Indonesia's Aceh province overturn a truck before setting fire to it. Many Chinese-owned stores were also attacked.

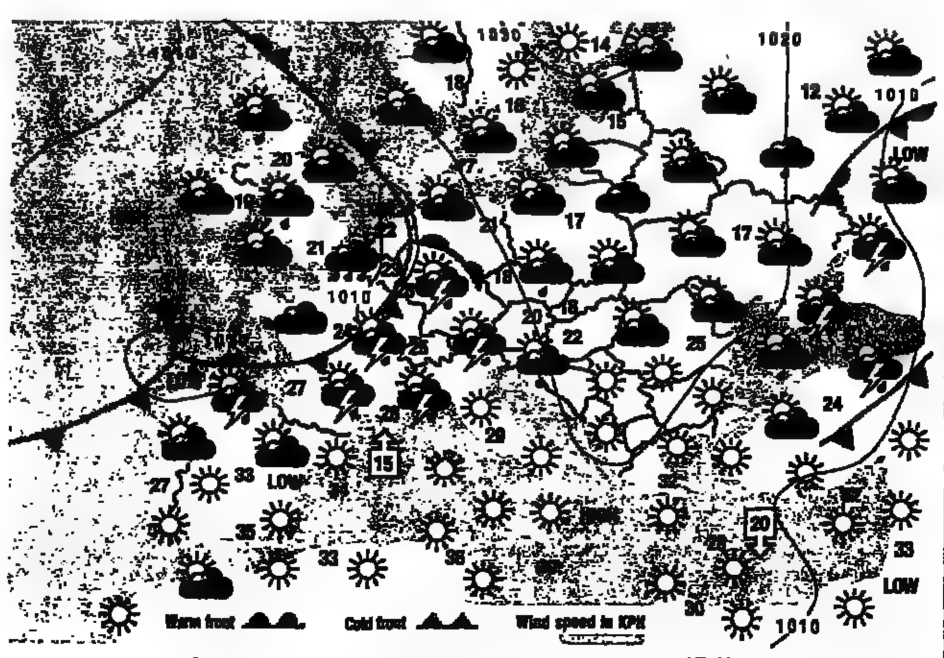
FT WEATHER GUIDE

Europe today

High pressure over Scandinavia will bring sunshine after a cool start. France and western Europe will have locally heavy rain and thunderstorms as the fading former hurricane Bonnie moves in from the west. There may be further showers and thunderstorms across western Germany, Switzerland and the Alps late in the day. Most of eastern Europe will be dry with sunny intervals. The south of the Iberian peninsula, Italy and Greece will stay hot and sunny.

Five-day forecast

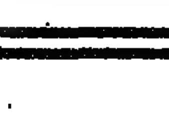
Heavy rain and thunderstorms will move east across northern Italy, Austria and Germany tomorrow, reaching eastern Europe on Friday. Northern Scandinavia, the Baltic states and western Russia will remain fine, but it will be cold at night. North-western Europe will be unsettled, but the Mediterranean will remain mostly sunny.



Situation at midday. Temperatures maximum for day. Forecasts by PA WeatherCentre

TODAY'S TEMPERATURES

		Maximum Celsius
Abu Dhabi	Sun	44
Accra	Fair	27
Algiers	Fair	33
Amsterdam	Cloudy	22
Athens	Sun	32
Atlanta	Fair	33
B. Aires	Fair	19
B.ham	Fair	21
Bangkok	Thunder	34
Barcelona	Fair	31
Beijing	Fair	29
Belfast	Shower	17
Belgrade	Fair	26
Berlin	Fair	21
Bermuda	Thunder	31
Bogota	Cloudy	18
Bombay	Rain	32
Brussels	Shower	[illegible]
Budapest	Fair	22
C.hagen	Fair	17
Cairo	Sun	34
Caracas	Cloudy	32
Cardiff	Fair	20
Casablanca	Fair	25
Chicago	Thunder	28
Cologne	Shower	25
Dakar	Cloudy	31
Dallas	Sun	36
Delhi	Fair	29
Dubai	Sun	43
Dublin	Fair	19
Dubrovnik	Sun	27
Edinburgh	Shower	20
Faro	Fair	27
Frankfurt	Shower	22
Geneva	Thunder	25
Gibraltar	Sun	31
Glasgow	Cloudy	[illegible]
Hamburg	Fair	20
Helsinki	Fair	14
Hong Kong	Shower	29
Honolulu	Fair	32
Istanbul	Fair	26
Jakarta	Cloudy	33
Jersey	Rain	21
Johannesburg	Fair	19
Karachi	Sun	35
Kuwait	Sun	46
L. Angeles	Sun	34
Las Palmas	Sun	27
Lima	Cloudy	19
Lisbon	Cloudy	27
London	Shower	21
Lux.bourg	Thunder	23
Lyon	Thunder	29
Madeira	Fair	28
Madrid	Sun	33
Majorca	Thunder	[illegible]
Malta	Sun	30
Manchester	Shower	19
Manila	Cloudy	32
Melbourne	Fair	20
Mexico City	Fair	27
Miami	Fair	34
Milan	Thunder	30
Montreal	Shower	23
Moscow	Rain	[illegible]
Munich	Shower	23
Nairobi	Cloudy	25
Naples	Sun	31
Nassau	Thunder	33
New York	Fair	28
Nice	Thunder	28
Nicosia	Sun	32
Oslo	Fair	18
Paris	Thunder	24
Perth	Rain	18
Prague	Fair	18
Rangoon	Cloudy	34
Reykjavik	Rain	16
Rio	Cloudy	21
Rome	Sun	29
S. Frsco	Sun	32
Seoul	Cloudy	25
Singapore	Fair	31
Stockholm	Fair	16
Strasbourg	Thunder	25
Sydney	Sun	21
Tangier	Fair	26
Tel Aviv	Sun	34
Tokyo	Fair	28
Toronto	Rain	25
Vancouver	Shower	25
Venice	Fair	27
Vienna	Shower	18
Warsaw	Shower	17
Washington	Fair	31
Wellington	Cloudy	12
Winnipeg	Cloudy	21
Zurich	Thunder	24



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FINANCIAL TIMES

COMPANIES & MARKETS

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INSIDE

Italian bank branches out but strategy is rooted at home

Banca Popolare di Verona, the Italian regional co-operative bank, seems unconcerned by the Asian financial turmoil. It has opened an office in Hong Kong to support its small and medium-sized corporate customers. But it insists its strategy remains rooted in Italy. Page 16

SWX to open office in London

The Swiss Exchange, Europe's fourth biggest stock exchange, is to open an office in London in a bid to regain its position as Europe's main eurobond trading centre. The SWX is seeking UK regulatory approval and its London office could open before the end of the year. Page 20

Skymark flies in face of tradition

Jun Okawara (left), founder and president of Skymark Airlines, Japan's first new airline for 35 years, defied authorities by refusing to set minimum fares. Skymark's debut marks the end of a two-year struggle against the traditional way of doing business in the tightly regulated airline industry. When flights begin next week, Skymark's fares will be 50 per cent less than those charged by the established carriers. Page 15

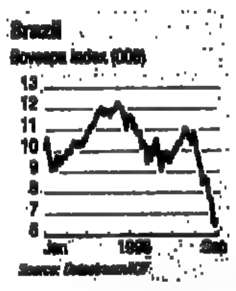
US groups in automotive sell-offs

A string of disposals suggests some US conglomerates are dismantling their carefully assembled car parts operations. ITT Industries and Cooper Industries, which also makes electrical equipment, have raised $5.5bn dismembering their automotive empires. Page 14

India to set up soyabean exchange

India is to set up a domestic futures exchange for soyabeans, the country's third largest oilseeds crop after groundnut and rapeseed. The Soyabean Processors Association has been given the go-ahead to start trading futures in soyabeans and soyabean products. Page 22

São Paulo suffers mood swings



The São Paulo Stock Exchange has seen days of dizzying swings, culminating last Thursday with a fall in the Bovespa index of almost 10 per cent. The Brazilian market has been among the hardest hit by the Russian crisis. There are two main reasons. One is Brazil's liquidity. The other is the perceived risk of a devaluation or other economic shock treatment. Page 32

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MARKET STATISTICS

Setback for Hoechst as deal fails

Joint venture with Mobil on polypropylene film founders

By Jenny Luesby

Hoechst of Germany suffered a further setback to its restructuring efforts yesterday with the announcement that a joint venture with Mobil had foundered.

The venture, with anticipated sales of $1bn a year, would have been the world's largest producer of the polypropylene film used to wrap cigarettes, snacks, sweets and pastries.

The failure of the deal saw the German group's share price fall by 4.4 per cent to close at DM69.0 in Frankfurt, where the market closed slightly higher on the back of a Wall Street recovery.

Hoechst said it was now in talks with another partner, which would lead to a merger of its films business before the end of the year.

This did little to reassure investors, who have become concerned at the group's failure to complete the withdrawal from its chemicals businesses announced two years ago, as part of a shift towards life sciences.

An initial series of deals, which included the transfer of its specialty chemicals business to Clariant of Switzerland for SFr4.6bn ($3bn), has since slowed to a trickle.

Hoechst would give no details of the breakdown of talks with Mobil, beyond citing "cultural differences".

The venture, announced in March, followed several months of talks and involved a letter of intent to combine the two companies' polypropylene film manufacturing, marketing and sales, and development and support businesses.

The deal was expected to be completed by July 1, and would have created a 50-50 joint-venture.

However, with Mobil bringing 230,000 tonnes of production capacity to the venture and Hoechst just 170,000 tonnes, this would have required an arrangement to balance the company's asset contributions.

Hoechst denied it was a failure to agree on valuations that scuppered the deal.

Another problem for Hoechst has been the political sensitivity to its attempts to cut jobs. This is thought to have been a factor in the choice of an equity fund, rather than a trade buyer, to acquire the group's paints business, Herberts.

Hoechst and Mobil had estimated annual cost-savings from the joint venture at $40m before tax. They said this would include job-cuts. But concerns in Germany over such cutbacks had not been a factor in abandoning the deal, said Hoechst.

The process of due diligence had thrown up irreconcilable differences, it said.

The deal, which would have created a business twice the size of its nearest competitor in the polypropylene films market, has triggered further consolidation in the sector.

Montell has since announced the sale of its films business, with annual turnover of $200m, to Applied Extrusion Technologies of the US. Montell said the strength of the Mobil-Hoechst venture would have made further heavy investment in its business necessary.

Earlier joint venture talks, which would have merged another Hoechst plastics business with a BP unit, were thought to have broken down over asset valuation issues.

UK energy companies in $7.9bn merger

By Andrew Taylor, Utilities Correspondent

Southern Electric and Scottish Hydro-Electric are to merge, creating one of the UK's biggest energy businesses, with a market capitalisation of £4.8bn ($7.9bn).

The deal, announced yesterday, brings together the country's only two regional electricity suppliers not to have been involved in a takeover or merger out of 14 privatised in the early 1990s. The transaction will leave Southern shareholders owning about 55 per cent of the combined business and Scottish Hydro-Electric shareholders 45 per cent.

Jim Forbes, chief executive of Southern, who will become chief executive of the merged company, said the split reflected the stock market values of the two groups and involved no bid premium.

Southern shareholders will receive one Scottish Hydro share for every Southern share. Southern's share price yesterday slipped 2p to 558½p. Scottish Hydro rose 12p to 564½p.

The merged group, to be renamed Scottish and Southern Energy, will be based at Perth in Scotland. It will supply electricity to 3.3m customers and own about 5 per cent of the UK's generating capacity. Mr Forbes said he did not expect the deal to raise competitive or regulatory objections.

Southern, which supplies electricity to 2.65m customers in southern England, has only a small generating capacity of 700MW in England and Wales.

Scottish Hydro, which supplies 634,000 customers, is better known as a generator, with more than 2000MW of capacity in Scotland and 886MW in England and Wales.

Mr Forbes said the merged company would command greater capital resources to expand.

Peter Young, who had previously announced his intention to stand down as chief executive of Scottish Hydro in 1999, will become joint deputy chairman of Scottish and Southern. He said the merger would provide substantial savings by eliminating duplicated costs such as information technology. Dresdner Kleinwort Benson advised Scottish Hydro and Credit Suisse First Boston represented Southern.

Lex, Page 12

Telephone groups eye IBM's data network auction

By Roger Taylor in San Francisco and William Lewis in New York

International Business Machines, the leading computer company, is thought to have received up to 12 expressions of interest from telephone companies keen to buy its international data network.

IBM has put the network up for sale and is said to want to complete the auction process before December.

Most analysts expect that the network will fetch up to $4bn.

IBM declined to comment on the auction but is understood to have asked Merrill Lynch, the investment bank, to seek bids. Merrill Lynch also declined to comment.

The data network consists of 1,300 access points – computer switches – in 58 countries. IBM and its clients can dial into these access points, which convert data for transmission on long-distance telephone lines leased from telecoms companies.

IBM built the data network to allow its regional offices to send data around the world

Lou Gerstner, chief executive, has helped restore group's fortunes

when telephone companies lacked the infrastructure to handle data transmission.

Companies such as AT&T, WorldCom and Sprint in the US are investing billions of dollars to handle the rapid increase in data transmissions driven largely by the growth of the internet.

The international reach of IBM's network would make it an attractive asset to many of these companies.

Analysts welcomed the move, saying there was little sense in IBM devoting resources to maintaining an international network when telephone companies were better able to do that job.

IBM's data networking division employs about 6,000 people, has revenues of about $2bn and is profitable.

The group plans to sell the physical network but will retain the services side, which provides corporate clients with international data transmission services.

Whoever buys IBM's network will get a substantial amount of business. The sale agreement is likely to include a contract to supply whatever data networking capacity IBM requires to service its corporate clients.

If IBM cannot get an adequate price it will continue to run the network itself.

The move is a further reflection of the changes being wrought at IBM by Lou Gerstner, chief executive, who has done much to restore the company's fortunes. He has also put IBM's printer division up for sale.

COMMERCIAL VEHICLES DIVISION SET TO MEET GROUP'S RETURN ON CAPITAL GOAL OF 12%

Daimler trucks to hit target

By Haig Simonian in Hanover

Daimler-Benz's once chronically loss-making commercial vehicles division is set this year to meet the company's target of a 12 per cent return on capital for the first time.

Kurt Lauk, head of the German group's commercial vehicles, said the division's earnings would be "either just over or just under" the 12 per cent goal set for all Daimler-Benz's business areas by Jürgen Schrempp, its chairman. Daimler-Benz is the world's biggest truckmaker.

Mr Lauk attributed the recovery to strong European and US demand for the group's rejuvenated van and truck range. Even in South America, the group's other big market, where demand had been affected by economic difficulties, sales had remained stable, he said.

Commercial vehicle turnover rose by 20.7 per cent to DM25.8bn ($14.2bn) in the first seven months of this year, Mr Lauk said. Unit sales rose by 21 per cent to 277,000. The increases had prompted the group to raise its full-year sales forecast from 440,000 to more than 480,000 units – worth about DM45bn. The group sold 417,000 trucks and vans in 1997.

Mr Schrempp brushed aside suggestions that the economic crises in Russia and Asia would affect Daimler-Benz's commercial vehicle sales this year – though he reserved judgment for 1999.

He said he did not expect the

Jürgen Schrempp, Daimler-Benz chairman, with the new Mercedes truck at the Hanover fair yesterday. He does not expect the fall in share prices to impede the takeover of US carmaker Chrysler Picture: Reuters

steep falls in share prices caused by the turmoil to impede Daimler-Benz's planned takeover of Chrysler, the US carmaker.

"The relative values of the two companies' shares has not changed significantly," Mr Schrempp said. "We are very optimistic the stock market events won't have any negative effect."

Both executives promised further transparency for Daimler-Benz's commercial vehicles business. Traditionally, losses in trucks and vans had been hidden by the group's large profits in its mainstream car operations.

The change would start by reorganising the group's powertrain unit, which makes engines, gearboxes and other big components for its commercial vehicles. Under the new structure, the group will be able to seek business from truck and van makers other than Daimler-Benz.

Underlining its new confidence in commercial vehicles, Daimler-Benz also revealed truck and van sales on a divisional basis for the first time. All six main operations increased sales substantially in the first seven months.

In Europe, turnover in vans climbed by 16 per cent to DM5.6bn, while trucks climbed by 14 per cent to DM6.8bn. However, the biggest jump came in the North American free trade area, which incorporates the group's big US subsidiaries, where sales rose 44 per cent to DM7.8bn.

Telefónica earnings boosted by growth in mobile phones

By David White in Madrid

Spain's fast-expanding mobile telephone market enabled the Telefónica group to maintain high profit growth in the first half, with a 16.2 per cent rise in consolidated net earnings to Pta98.11bn ($640m).

The six-month figures showed that the telecoms group, fully privatised last year, is for the first time obtaining more than half its profit from a combination of the mobile business and its extensive Latin America operations.

The profit increase came in spite of slow growth in Telefónica's basic Spanish telephone business, where it has lost its former monopoly. More than 30 per cent of the net total was attributed to the mobile telephone division, which held 71 per cent of the Spanish market and produced higher profits in the six months – Pta34.8bn – than in the whole of last year.

Earnings per share were 6.5 per cent higher at Pta95.73 compared with Pta89.86 in the same period last year following a one-for-11 rights issue earlier this year. The Pta427bn issue, described by the company as the biggest capital-raising operation of its kind in Europe, was earmarked for further investments in Brazil.

Although earnings were slightly below some analysts' expectations, Telefónica's shares recovered yesterday after sharp early losses to close 0.7 per cent down in Madrid at Pta5,690.

This represented an accumulated drop of 28 per cent since the Pta7,390 peak reached in July. Telefónica, Spain's largest company by market value, has seen its shares punished heavily in the past two weeks because of its commitments in Latin America – a region threatened with financial instability.

Overseas revenues rose almost 12 per cent to Pta443.8bn – 27 per cent of the group total – with the strongest growth coming from Argentina. Turnover in mobile telephones in Spain was nearly 25 per cent up at Pta212.9bn. The company said the two sectors contributed more than 50 per cent of total group profits and 40 per cent of turnover.

This proportion is set to increase following its latest forays into Brazil, consolidating its position as leading international telecoms group in Latin America.

In privatisation auctions last month, it led a successful $5bn consortium bid for the São Paulo fixed-line operator, Telesp, and another $1.2bn purchase of cellular businesses in the states of Rio de Janeiro and Espírito Santo.

Its Telefónica de España unit, which, under a recent reorganisation, runs its mainstream Spanish operations, increased first-half revenues by less than 4 per cent to Pta820.4bn. Overall turnover, net of intra-group sales, was 8.5 per cent up at Pta1,418bn.

At operating level, consolidated profit was 21 per cent up at Pta429.2bn. The group said it had continued to slow down the rise in operating costs – 0.4 per cent higher than in the 1997 first half.

SATELLITE TELEVISION NEWS CORP CHIEF SURRENDERS CHAIR AFTER STRUGGLE TO BREAK INTO CHINESE MARKET

Murdoch steps down at Star TV

By Christopher Parkes in Los Angeles

Rupert Murdoch has stepped back from the front line in the battle to open Chinese media markets and appointed Gareth Chang as chairman of Star TV, News Corporation's Asian satellite television service.

By surrendering his chairmanship of the loss-making venture, Mr Murdoch has relieved himself of one of his most testing jobs after years of struggling to convince the Chinese authorities to allow News Corp more access to their market.

The appointment of Chinese-born Mr Chang, former head of international operations at Hughes Electronics' DirecTV satellite broadcasting subsidiary, marks a strategic shift at a time when Star is believed to be close to breaking even.

His appointment to the board of News Corp and the inner circle of the group's executive committee demonstrates the importance Mr Murdoch attaches to his hitherto uneven efforts to break into Asian, and especially Chinese, markets.

The relationship between Mr Murdoch and Beijing has been uneasy since the News Corp chairman's speech in 1993 which suggested the spread of satellite TV services could undermine totalitarian regimes.

Since then, Mr Murdoch has been at pains to stress his goodwill, visiting China frequently and investing in a joint internet venture with the People's Daily.

He has been criticised for his conciliatory moves, such as removing BBC news from the Star TV service and approving a $1m book publishing deal for the daughter of Deng Xiaoping.

Star, based in Hong Kong, has absorbed about $2bn in acquisition costs and losses since News Corp bought the service in 1993. Its signals cover much of India. China and parts of the Middle East, transmitting music videos, films, sport and English programmes.

Mr Chang, a former McDonnell-Douglas executive, is credited with brokering many commercial links in Asia, including the setting up of DirecTV Japan with six local companies.

He is also on the board of Apple Computer and the advisory board of the Nike sportswear group.

Car groups start to squeeze component makers

Sell-offs replace period of expansion, writes **Haig Simonian**

After years of growing painstakingly through acquisitions, first at home and then abroad, US conglomerates such as ITT Industries elevated themselves into the first rank of the world's car parts makers. But a string of disposals suggests some are now dismantling their carefully assembled operations.

In recent weeks, ITT Industries and Cooper Industries, which also makes electrical equipment and hardware, have raised $5.5bn dismembering their automotive empires.

ITT raised $1.7bn selling its vehicle electrics division to Valeo of France. A further $1.9bn came through the sale of its braking activities to Continental, the German tyres group. Houston-based Cooper raised $1.9bn selling two automotive subsidiaries to Federal-Mogul, the fast expanding parts specialist.

More disposals may be on the way. AlliedSignal's surprise $9.8bn hostile all cash bid for AMP, the world's largest supplier of electric and electronic connectors, has sparked talk it might have to divest some businesses to raise money. AlliedSignal is a leading producer of turbochargers, brake parts and filters.

Uncertainty even surrounds Tenneco, a once sprawling conglomerate now focused on packaging and car parts.

Tenneco Automotive, its parts division, was widely tipped to buy ITT's brakes businesses until an eleventh hour withdrawal. Instead, Tenneco's parent company said it was examining spinning off its two subsidiaries' divisions.

The ITT and Cooper disposals would have raised few eyebrows had they been small or marginal operations. But the businesses were leading names in areas where consolidation had, apparently, reached its peak.

ITT's brakes business, best known for its German-based Teves brand, ranks alongside Robert Bosch and LucasVarity in the world's top manufacturers. Among the brands sold by Cooper were household names such as Champion sparking plugs, a market leader.

Three broad reasons explain the readiness to sell:

● Conglomerates such as ITT and Cooper are becoming concerned about profit margins in the motor industry. Components companies commonly report earnings equivalent to about 6 per cent of sales. That is about twice that of vehicle makers, their main customers. The discrepancy has prompted many vehicle manufacturers to target suppliers for price cuts. Fearless cost cutters, such as Jac Nasser, head of Ford's worldwide automotive business, have axed expenses internally and demanded similar sacrifices from suppliers.

● Vehicle makers have been demanding greater financial commitments from suppliers. Car and truck manufacturers have tried to save money by devolving product development work onto their component companies. Instead of being handed detailed technical drawings and told to submit bids, suppliers are now involved more closely in vehicle development.

The appeal for them is in winning exclusive, long-term contracts. With vehicles being produced globally, that could mean massive volumes. But a successful supplier would also be expected to invest heavily in research and development and, if necessary, in new capacity to supply its customer's plants just-in-time around the world.

● Sale prices for big components operations are looking full in historical terms. In May, Dana, a leading body parts specialist, paid about 10 times earnings before tax, depreciation and amortisation for Echlin, a braking and aftermarket parts group. That was comfortably above the margin of eight to nine times earnings common in the industry.

"The vendors have looked at their other businesses and decided they can get better returns on their capital," says Greg Melich, motor industry analyst at Morgan Stanley in London.

John Riley, Cooper chairman, justified its decision, saying: "Given the growth potential we see in our electrical products and tools and hardware segments, we believe that our shareholders would be better served by our focusing on and growing these core businesses."

Dick Snell: set goal of $10bn sales by 2002

But while some companies have taken their parts operations to bits, the amounts they have raised shows there is no lack of buyers for such one-off opportunities.

Valeo's purchase will increase its sales by about a third to FFr45bn ($7.6bn), based on its 1997 figures. The deal will enable the French group, previously the world's 14th biggest parts maker, to expand its business with US and German carmakers – ITT's main customers – and reinforce its strong position in parts, such as wiper systems and electric motors.

Continental's $1.9bn bid for ITT's braking division, meanwhile, showed tyre manufacturers could pump up their low-margin businesses by moving into ancillary products. The step formed part of the tyremaker's long-term strategy to supply entire automotive "corners", including tyres, brakes and ride components, as part of the broader trend in the motor industry towards providing modular assemblies.

After the acquisition, Continental's sales will be divided equally between tyres and other components: before, tyres accounted for about 70 per cent.

Federal-Mogul's move appeared equally astute. The group, which has been growing frenetically through acquisitions under Dick Snell, its chairman, will expand its limited presence in braking and lighting and develop its lucrative aftermarket side. Sales should climb from more than $5bn to $7bn – closer to Snell's $10bn goal by 2002.

"It's a win-win situation. The vendors are pleased to get out, and the buyers think they can do better out of the businesses by leveraging their costs over much bigger volumes," says Mr Melich.

Eaton issues warning following sales fall

By Nikki Tait in Chicago

Eaton Corporation, the large Cleveland-based manufacturing group, warned yesterday that the troubles faced by its semiconductor equipment business were proving more extensive than previously feared.

The division, it said, would now post a 40 per cent fall in sales in 1998, and an operating loss of around $80m.

Three months ago, the group warned about the problems, and said it expected sales from the business to tumble from around $450m last time to around $330m in the current 12 months. It said earnings would swing from a $30m profit to a loss of between $40m and $45m.

But yesterday's revised estimates, which envisage sales of only $275m, acknowledged that the difficulties have continued to mount, with no end in sight.

Stephen Hardis, chief executive, said that the industry activity "shows no sign of bottoming" and that "no one can say with confidence when conditions will begin to turn".

He said Eaton was studying ways to pull the business to a break-even position on the new projected sales levels, with the review likely to be complete within a month.

The company has already cut 600 jobs in the division since the end of 1997.

Any additional charges "required to implement structural adjustments" would be included in the review, he said.

Eaton had already cautioned that the semiconductor equipment problems might prevent it from seeing an earnings improvement in 1998.

Ahead of yesterday's news, analysts were forecasting earnings per share of just over $6 in 1998, compared with $6.33 in 1997, according to First Call.

In July, Eaton revealed disappointing second-quarter profits, down from $126m a year ago to $114m. The drop was blamed on difficulties at its semiconductor equipment business, and on the knock-on effect of strikes at General Motors and the Paccar truck company. Sales slipped from $1.91bn to $1.71bn.

NEWS DIGEST

CONSUMER PRODUCTS

Procter & Gamble plans restructure to boost sales

Procter & Gamble, the US consumer products giant, plans its second big corporate reorganisation this decade, with job cuts likely, in an effort to boost profits and double its sales within 10 years. The group told shareholders in a letter accompanying the annual report at the weekend that business units would be based on products, instead of regions, marketing would be improved and corporate staff streamlined. However, it declined to say how many jobs would be affected.

Details of the plan will be announced in coming weeks. Sales have grown steadily in recent years, but not at a rate to achieve the goal of John Pepper, chairman, of doubling them by 2005. For the year ended June 30, the company had sales of $37.2bn, up only 4 per cent from the year before. When Mr Pepper took over in mid-1995, annual sales were $33.4bn.

The company's last big reorganisation was announced in July 1993 when Edwin L. Artzt was chairman. It closed 30 plants and cut 13,000 jobs world-wide. **DJ-AP, Cincinnati**

FINANCIAL SERVICES

KPMG revenues up 27% in US

KPMG Peat Marwick, the US firm of the global professional services giant KPMG, yesterday announced that revenues in the year ended June 1998 were up 27 per cent to $3.8bn. The firm said it was aiming for a 30 per cent increase in revenues to $6bn by 2000. Consulting revenues rose 50 per cent to $1.5bn in the year.

These figures will be closely watched in the US where KPMG has announced it is considering a flotation of 30 per cent of its management consulting business. An initial public offering would be the first among the so-called Big Five. However, the firm is still at an early stage in considering an offering, and regulators may intervene. If the firm does seek an offering it will have to reveal details of profitability – otherwise obscured in the annual disclosure of revenues. **Jim Kelly**

ELECTRONICS

Hitachi to close Texas plant

Hitachi, the Japanese electronics group, is mothballing its Texas memory chip plant and laying off 650 workers in the latest response to the slowdown in the world semiconductor market.

The company is also merging its two California-based chip development units – Hitachi Semiconductor and Hitachi Micro Systems – into a single unit which will focus on developing Hitachi's microcontroller business. The new unit will also handle the sale of memory chips for Hitachi, which continues to manufacture memory chips in other plants around the world. The US operations are part of Hitachi America, a subsidiary of the Japanese group.

Kosei Nomiya, who is appointed chairman of Hitachi Semiconductors America, said: "The global semiconductor business continues to be dramatically affected by overcapacity in memory chips." However, he added that there were still significant opportunities for microcontroller chips. These chips are used to drive sophisticated control and monitoring capabilities to a wide range of other devices, from home appliances to industrial machinery.

The group said the Texas plant would be made idle immediately but would be kept in a usable state while its future was considered. The financial effects of the move will be immaterial to Hitachi which has consolidated worldwide sales of Y8,400bn ($58.5bn).
Roger Taylor, San Francisco

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Woodard pays for 'surprises'

Loss of BA order probably not the trigger for sacking of Boeing executive

By Michael Skapinker Aerospace Correspondent

The sacking of Ron Woodard, head of Boeing's commercial aircraft division, signals the exit of one of the aerospace industry's great characters.

The departure of the plain-speaking, imposing 55-year-old, announced yesterday, might not be permanent. He is still talking to Boeing about taking another, unspecified post.

And if he does leave Boeing, where he has worked for 32 years, he might turn up elsewhere. He is widely recognised as one of the world's best aircraft salesmen.

The decision by the Boeing board to remove Mr Woodard came after a dreadful week for the company.

It had failed to win a large order from British Airways, one of its most loyal customers, which decided to buy up to 188 narrow-bodied aircraft from Airbus Industrie, the European consortium.

The setback followed months of production difficulties in Boeing's civil aircraft factories, which helped push the group to a $178m loss last year, its first for 50 years.

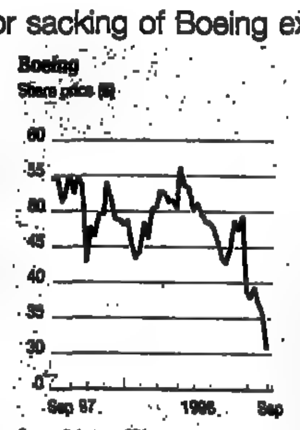
By Monday, when the board took its decision to fire Mr Woodard, Boeing's share price had lost 43 per cent of its value over the year.

In an attempt to limit the damage, the board announced a buyback of up to 15 per cent of its shares.

The production difficulties, which resulted in some lines being suspended for a month last year, were the result of Boeing sharply increasing output in an attempt to meet a spurt in airline demand.

Mr Woodard dismissed those who suggested he should have foreseen the problems as "second-guess yappers".

Mr Woodard's dismissal had been rumoured frequently. Each time, Boeing insisted he was staying.



Observers reject the idea that Mr Woodard was sacked for losing the BA order. Indeed, refusing to match Airbus's price was seen as a belated attempt by Mr Woodard to put profit before market share.

"He had more praise and 'attaboys' from the analysts' community for drawing a line in the sand and saying 'we're not bidding any more for that one', than he's ever had," one Boeing insider said.

The more likely trigger to his removal was the discovery of yet more problems at the company's plant in Wichita, Kansas, where cost over-runs are believed to total hundreds of millions of dollars.

Mr Woodard had lived dangerously for years. When the European Commission was examining Boeing's proposed takeover last year of McDonnell Douglas, and Boeing was avoiding any comment that might upset Brussels, Mr Woodard cheerfully announced that his strategy towards Airbus was "to bury them".

His colleagues winced, but laughed it off.

But the discovery that there were yet more, previously undisclosed cost problems in the civil aircraft division was the final straw. "The board doesn't like surprises," one observer said.

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WINE AUSTRALIAN PRODUCER TO BUY BACK 1.6% OF CAPITAL

European demand aids growth at Southcorp

By Gwen Robinson in Sydney

Strong demand for Australian wine in European and North American markets, helped Southcorp, the Australian wine, appliance and packaging group, post record profits for its fifth consecutive year of double-digit growth.

Southcorp, one of the world's largest producers of premium wines, yesterday also announced a share buyback of 10m shares, or 1.6 per cent of its capital, from mid-September.

The stock market welcomed the news, sending Southcorp shares up 22 cents to A$4.40.

Graham Kraehe, chief executive, said the buy-back – the group's first – reflected the board's belief that Southcorp's share price was undervalued. The buy-back would also help offset any dilution of the company's dividend reinvestment policy.

For the year to June, Southcorp's net profit before extraordinary items rose 16 per cent to A$157.1m (US$90m) and sales grew 7 per cent to A$2.7bn. Abnormal charges of A$18.25m, including A$13.3m for restructuring the domestic appliance and packaging arms, brought bottom-line net profit to A$143.9m, against A$135.3m the previous year.

Mr Kraehe expected all the businesses to increase earnings in the year to June, although the packaging arm suffered in the previous year because of Asian economic turmoil. Southcorp's direct exposure to Asian markets represented only about 3 per cent of sales and included Japan, its largest Asian wine market where wine sales surged nearly 90 per cent in the year.

Mr Kraehe said international sales had been the key driver of Southcorp's growth and were now growing at a faster rate than domestic sales. Sales outside Australia represented 45 per cent of total revenue in the year to June, an increase of more than 5 percentage points on the previous year.

Despite the Australian dollar's fall in the period, the group's foreign-exchange gains were limited because of long-term currency hedging arrangements. In the current year, however, Southcorp expects gains of about A$20m after adjusting its hedging arrangements, Mr Kraehe said.

Wine now represented the fastest growing business for Southcorp, climbing 15 per cent in the year to nearly A$600m. In the next few years, wine, which represents 35-40 per cent of total sales, would generate the majority of revenues, Mr Kraehe predicted.

The group is emphasising its premium red wines, including the Penfold's Grange Hermitage label. Earlier this year, Southcorp said it would invest a further A$150m in doubling its red wine capacity. In Europe, the UK saw the strongest growth in wine sales, increasing 32 per cent in the year, while North America grew 47 per cent and has averaged 40 per cent compound growth for the last four years. "Going forward, however, we expect the overall growth rate of wine sales to slow to about 27 per cent annually," Mr Kraehe added.

Appliance sales rose 14 per cent to A$1.06bn, while operating profit jumped 65 per cent to A$62.1m. The packaging side saw sales slip to A$1.1bn and operating profit fall nearly 10 per cent to A$118m.

NEWS DIGEST

SOUTH KOREA

New auction planned for bankrupt Kia motor group

Another auction for the bankrupt Kia motor group will be held after the first attempt to sell South Korea's third-largest carmaker was formally cancelled yesterday because of low bids and demands for bigger debt write-offs.

Kia officials said details and the schedule of the next auction have yet to be confirmed. They are discussing the issue of debt write-offs with creditor banks, which have demanded that Kia's buyer must assume all its principal debt. Kia's debt burden is currently estimated at Won13,000bn ($9.6bn), including interest payments.

All four bidders for Kia, including Ford Motors of the US and the Korean carmakers Hyundai, Daewoo and Samsung, were disqualified from the auction after they demanded more debt write-offs, while Ford and Hyundai bid below the minimum asking price of Won1,100bn for Kia and its truck division, Asia Motors.

John Burton, Seoul

CHINA

Coca-Cola targets tea market

Coca-Cola, the US soft drinks maker, is targeting China's non-fizzy market with products such as ready-to-drink tea, according to Mickie Leong, vice-president and general manager of the company's China brand. Coca-Cola has just under 1 per cent of the Chinese non-carbonated beverage market, which makes up 60 per cent of the entire beverage market of 62.4bn cans annually.

Growth for Coca-Cola's China brands, which include Tianyudi tea, mineral water and fruit juices and Smart carbonated fruit juices, will be 10-fold this year and next year, Mr Leong said.

Coca-Cola reported a 26 per cent growth in sales of all its products in China in the first half of the year but expects the summer's floods to affect production and consumption in the third quarter. Mr Leong said the company was happy with its 30 per cent share of the fizzy-drinks market but could do better in a growing market.

Mainland Chinese citizens consume just six servings of cola a year. This compares with 150 servings in Hong Kong and 400 servings per year in the US.

AFX-Asia, Shanghai

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Quiet revolutionary takes to the Japanese skies

Skymark, the country's first new airline for 35 years, has defied the authorities by refusing to set minimum fares, writes **Alexandra Harney**

Jun Okawara: 'There used to be a need to protect our industries but we don't need that kind of protection anymore. We have grown up.'

Jun Okawara looks like an unlikely force for change in Japanese industry. He is softly spoken and has an easy, boyish manner. He fixes coffee for visitors himself, an unusual courtesy in Japan's corporate culture.

But as the founder and president of Skymark Airlines, Japan's first new airline for 35 years, Mr Okawara is a revolutionary. In the battle to establish the country's first low-cost, no-frills airline, he has challenged stubborn bureaucrats and executives from the industry's biggest carriers, and defied the odds of the financial crisis gripping Japan.

Skymark's debut marks the end of a two-year struggle against the traditional way of doing business in the tightly regulated airline industry, where the Ministry of Transportation (MoT) sets fares and doles out routes. Mr Okawara set a new industry standard by refusing to agree to minimum fares for Skymark flights in his application to the MoT.

When flights begin next week, Skymark's fares will be 50 per cent less than those charged by the established carriers – Japan Airlines, Japan Air Systems and All Nippon Airways – on the route between Tokyo and Fukuoka. It will be the first time a domestic airline has dared to undercharge its rivals significantly.

Not much about Skymark, or Mr Okawara, is conformist. In Japan's corporate world, where most people stay with one company for life; he has switched jobs and industries several times, dabbling in electronics, sales and finance. He even spent several years with a steel company in the US.

"I was always thinking about what I would need to learn to start an airline," says Mr Okawara. He envisioned a company like Southwest Airlines, the successful low-cost carrier famous in the US for its singing stewardesses and reasonable fares. Mr Okawara saw his opportunity after the collapse of the bubble economy in the early 1990s, when profits at the big airline carriers were tumbling.

In early 1990, he approached Hideo Sawada, president of HIS, Japan's biggest discount travel agency, with a plan to found a low-cost airline. It was their first meeting, and the beginning of Skymark.

Without the name recognition of HIS, which eventually bought 60 per cent of the airline's shares, and Orix, the credit company that holds 26 per cent of the equity, no Japanese politician or bureaucrat would ever have been sympathetic to his requests, Mr Okawara said. He refused to specify a minimum fare – one of the regulations that has discouraged price competition between the established carriers.

After months of negotiation, the company gained permission to fly the Tokyo-Fukouka route, the second most heavily travelled route in the world after that between Tokyo and Sapporo.

Skymark's debut comes at a critical time for Japan's struggling airline industry. The three established airlines are struggling under shrinking profits, high operating costs and enormous amounts of debt. Analysts also contend that Skymark triggered a bureaucratic reversal. In the past, new entrants were blocked because ministry officials determined each airline's market share.

"It is quite a big break with the past. The interesting thing is that even if politicians were to have said overnight that they would allow a new airline to start up, they would have had to dust off the books and find the regulations for new entrants somewhere. I think they had to make a lot of it up along the way," said Douglas Hayashi, industry analyst at HSBC Securities.

For the Japanese consumer, Skymark's timing is good. The crisis in the financial system has made price more important to consumers, analysts said. "In the post-bubble era, consumer price-consciousness increased, and domestic airfares stuck out like a sore thumb. While prices in other sectors were falling, air fares remained conspicuously high," said Mr Hayashi.

Skymark aims to reduce operating costs by hiring pilots and using maintenance crews from other airlines, common practices among low-cost airlines in the US and Europe. The company will also become the first airline in Japan to use a ticketless computer reservation system.

The airline's influence is already visible. The three big carriers have already announced they will slash fares between 15 and 40 per cent on some flights, including the Tokyo to Fukuoka route. Another low-cost carrier, Air Do, has also applied for permission to start domestic flights.

Mr Okawara contends the time has come for a shakeout in Japan. "There used to be a need to protect our industries in Japan, and at the time, that was good. But we don't need that kind of protection anymore. We have grown up."

CONTRACTS & TENDERS

TELECOMMUNICATIONS DUTCH GROUP STICKS WITH FORECAST OF 2-4 PER CENT PROFITS INCREASE FOR YEAR

KPN edges ahead to Fl 1.01bn at midway

By Gordon Cramb in Amsterdam

KPN, the privatised Dutch telecoms group, achieved a record increase in first-half business volumes – but at sharply reduced prices as it was forced to respond to new competitors and a tougher regulatory regime.

As a result, net profits edged just 3.5 per cent higher to Fl 1.01bn ($507m).

Hans van den Bosch, chief financial officer, last night gave analysts a picture of how the group was fighting back. Income was being boosted in part by a voice-mail service, initially offered free to domestic customers, which meant that "4-5 per cent more calls were being completed than before".

Revenues rose 9.3 per cent to Fl 8.33bn, as a surge in volumes was offset by the lower prices. Growth in demand also reflected an increase in mobile phone users, where KPN operates the Netherlands' largest network. In addition, according to Mr van den Bosch, as much as 11 per cent of call traffic being initiated was by modem to the internet.

KPN controls World Access/Planet Internet, one of the country's leading service providers. But an attempt to widen this market through a cut-down version called Het Net is regarded by industry observers as a failure.

Mr van den Bosch defended the group's international strategy in the face of a dip into a Fl 11m pre-tax loss in the contribution from its affiliates, compared with Fl 26m profits last time.

Profitable involvements in countries such as Ireland and the Czech Republic were offset by weakness in Indonesia and a further negative result at Unisource, the European telecoms alliance, which cost Fl 102m.

However, Unisource – with which AT&T of the US plans over two years to cut its ties – formed only part of KPN's plans for foreign markets, Mr van den Bosch said. He added: "I think alliances will remain in certain markets or services but not on the scale as before."

KPN said a ruling due within days from Opta, the industry watchdog, "could have an effect on future results". Opta is due to pronounce on tariffs proposed by KPN for providing connections to rival services, after the company was prohibited from passing on costs of the local loop where calls originate or end.

But Mr van den Bosch said he did not expect substantial price decreases in the second half. KPN left unchanged a full-year forecast of a slight increase – of 2-4 per cent – in net profits from the Fl 1.94bn achieved by the then PTT Telecom in 1997.

That comes before a pre-tax charge of Fl 500m-Fl 800m, to be taken late this year, to cover job cuts.

VW dismisses speculation over trucks takeover

By Haig Simonian in Hanover

Volkswagen, Europe's biggest carmaker, yesterday confirmed its ambition to expand into the heavy truck business, but pulled back from earlier statements that it intended to do so by buying a leading manufacturer.

VW said its priority now was to shorten the lengthy order backlogs which had built up for many new models, such as the Golf. The company also appears to have decided to wait until the next big downturn in commercial vehicle demand, rather than pursue an acquisition at current inflated prices.

The speculation about VW's takeover plans, fuelled by Ferdinand Piëch, chairman, has caused turmoil in the truck industry. MAN of Germany and Sweden's Scania have regularly dismissed speculation they are among VW's prime targets.

Bernd Wiedemann, head of VW's commercial vehicles division, said: "We are not under any time pressure." Although buying an existing manufacturer would accelerate VW's plans, the company was "investigating other possibilities", such as joint ventures or developing its own products. "There are plenty of willing brides, but the dowry is considerable," he said.

Mr Wiedemann said sales of its current European-built light commercial vehicles had climbed 7 per cent to 160,000 units in the first eight months of this year. Turnover reached DM7.6bn ($4.3bn) last year, 18 per cent higher than 1996.

Mr Wiedemann said the world market for commercial vehicles, including sports utility products, would grow by about 20 per cent in the next three years. He forecast the fastest increase in central and eastern Europe, where sales should soar by 70 per cent to more than 700,000 units.

● Adam Opel, the German subsidiary of General Motors, expects sales of about 150,000 commercial vehicles a year in western Europe by 2005. Gary Cowger, new Opel chairman, said the growth would come mainly from the company's co-operation with Renault of France to produce a new generation of medium and heavy vans.

Mr Cowger said the company would invest more than DM8bn in Germany to develop new products and facilities over the next five years.

Albrecht Schmidt, chief executive of the new HypoVereinsbank, gives the 'thumbs up' sign in front of the new bank's offices in Munich. HypoVereinsbank, created by the merger of Bayerische Vereinsbank and Bayerische Hypotheken- und Wechsel-Bank, was officially formed yesterday. It will be the second biggest bank in Germany, with pro-forma consolidated assets of DM882bn ($489m). Reuters

Canal Plus wins soccer rights

By David Owen in Paris

Canal Plus, the French media group, last night announced that four top Italian soccer teams had awarded exclusive broadcasting rights to Telepiù, its 90 per cent-owned Italian subsidiary, for six seasons for an undisclosed sum.

The quartet – Juventus, AC Milan, Internazionale and Naples – include three of the teams expected to participate in a future European super league if the venture gets off the ground.

Canal Plus said the agreement is to take effect in September 1999 and extend through to June 2005.

It said the rights were for Telepiù's premium channels and its pay-per-view soccer service, PiùCalcio, which is part of its D Più digital package.

It said the deal would provide Telepiù and D Più subscribers with live coverage of matches involving the four teams.

Michel Thoulouze, Telepiù chairman, said the four accounted for 65 per cent of the Italian pay-per-view market.

Canal Plus has also obtained rights to the worldwide broadcast rights of Juventus, AC Milan and Internazionale for the same period, to be marketed by its new subsidiary, Sport Plus.

Mr Thoulouze said the Italian football league had agreed that pay TV and pay-per-view rights should be negotiated on a club by club basis, although rights to highlights and the Italian cup would remain with the league.

Mr Thoulouze did not answer directly when asked whether the deal covered the eventuality of the clubs playing in an eventual super league.

However, he said that if forced to choose between a super league and the Italian league for pay-per-view rights, he would choose the latter. "There is no super league for the moment," he said.

Italy has become the centre of a political battle over the rights to broadcasting soccer matches on pay-TV.

BBL shrugs off jump in provisions with 15% rise

By Neil Buckley in Brussels

Banque Bruxelles Lambert, Belgium's third largest bank and now owned by ING of the Netherlands, announced a 15 per cent increase in first-half net profits, despite a big increase in write-downs and provisions linked in part to the Asian crisis.

Net income rose from BFr5.86bn to BFr6.76bn ($186m), reflecting a 10.3 per cent rise in total revenues from BFr47.1bn to BFr51.9bn and only a 3.7 per cent increase in costs.

Gross operating income jumped 20 per cent from BFr18.4bn to BFr22.1bn. But depreciation, write-downs and provisions more than doubled from BFr6.34bn to BFr10.8bn.

The difference resulted in part from accounting changes, but also included BFr900m added to provisions for BBL's Asian exposure – on top of BFr600m set aside in 1997 – as well as write-downs on holdings in Asian subsidiaries, including a BFr353.1m writedown on the investment portfolio.

The provisions increased the loan-loss ratio from 0.29 per cent last December to 0.39 per cent, although this remained within the bank's target of 0.4 per cent.

Net interest income increased 6 per cent to BFr28.9bn, while non-interest income increased 15.9 per cent to BFr23bn, because of strong growth in commissions. The limited cost increase improved the cost-income ratio from 61 per cent to 57.3 per cent.

Michel Tilmant, chief executive, said BBL was "interested" in Crédit Lyonnais Belgium, a unit of the French bank, that is for sale.

MMK seeks buyer for paper recycling division

By William Hall in Zurich

Mayr-Melnhof Karton, the Austrian group which is Europe's biggest cartonboard maker, is seeking a buyer for its troubled waste paper recycling business.

Profits at the division, the smallest of MMK's three core businesses, last year collapsed from Sch25m ($2m) to Sch3m, even though volume increased 20 per cent to 974,000 tonnes. In the first six months of 1998 the unit achieved little more than break-even on marginally lower sales of Sch711m, because of continuing low waste paper prices.

MMK said yesterday it was reconsidering the future of the division, which primarily operates in Germany and employs 600.

Options include total divestment; the sale of a stake to another partner; or upgrading the business to include the recycling of other materials, such as synthetic materials and metals as well as waste paper.

However, Robin Horne, of Dresdner Kleinwort Benson in London, said a sale made most sense, it is a low quality business and MMK's raw material supply is protected by long-term contracts.

MMK's operating profits in the first half of 1998 rose 33 per cent, to Sch666m and operating margins increased from 9.1 per cent to 10.1 per cent. In cartonboard, MMK's biggest division, earnings before interest and tax rose 36 per cent to Sch472m, while packaging profits rose 21 per cent to Sch189m.

Group net income, which rose 44 per cent in 1997, is forecast to rise 20 per cent to more than Sch800m in the current year.

NEWS DIGEST

TELECOMMUNICATIONS

Ericsson pulls out of Burma after US boycott

Ericsson, the Swedish telecommunications group, has cut all business ties with Burma because of threats of a consumer boycott by US activists hostile towards the ruling Burmese military junta. The US has targeted Burma with sanctions to protest at human rights abuses allegedly carried out by the Rangoon government.

Ericsson said yesterday it feared its involvement in Burma – one of its smallest markets, with sales of just SKr20m ($2.5m) last year – could harm its business in the US. "The level of activity around this issue has been increasing such that it may now have an impact on our shareholders and customers," said a senior Ericsson official. He stressed the decision to pull out was taken on commercial grounds and was not a moral judgment.
Greg McIvor, Stockholm

PHARMACEUTICALS

Synthélabo advances 17.9%

Synthélabo, the pharmaceuticals subsidiary of L'Oréal, the French cosmetics group, yesterday reported a 17.9 per cent rise in first-half pre-tax profits to FFr1bn ($169m), which it attributed to strong growth in sales. These were ahead 8.3 per cent to FFr6.24bn.

Stripping out the effects of currency and acquisitions – mainly the consolidation of Sanorania, the German generic drugs group acquired last year from Pharmacia & Upjohn – growth was 7.1 per cent. The company said yesterday that it was still looking to lift sales through acquisitions.

"It is part of our strategy to make acquisitions in countries where we want to reinforce our position, or when we want to develop our specialties – the central nervous system, cardiovascular, urology and gastrointestinal," the company said.

Synthélabo already derives about 70 per cent of its revenues from overseas markets, mainly in the rest of Europe, North America and Japan.

The group forecast full-year sales growth of 8 per cent, and said the pre-tax figures would show a steeper increase. Last year it reported net profits of FFr1.1bn.
Mark Mulligan, Paris

SHIPPING

VLCCs buoy Frontline

Frontline, the Norwegian-owned tanker operator, yesterday reported record quarterly results, helped by the increased size of its fleet and improved trading of its very large crude carriers (VLCCs). Second-quarter net income rose tenfold to $14.7m from $1.4m in the year-earlier period. Earnings before interest, tax and depreciation, including earnings from associated companies, rose from $25m to $33.6m while net operating revenues for the first six months rose from $88m to $105m.

Yesterday's results were the first since Frontline acquired control of three ship-owning companies, which added six new VLCCs and four modern Suezmaxes to its fleet after it merged with London & Overseas Freighters. Frontline predicts the third quarter will show a "stable to positive development in operating profit", based on the increased fleet and strong VLCC earnings.
Valeria Sköld, Oslo

SPAIN

Iberdrola boosted by rainfall

Iberdrola, Spain's second largest power utility, raised its attributable net profit by more than 10 per cent in the first half-year to Pta54.43bn ($363m), the biggest increase in the sector and ahead of market expectations. High rainfall enabled the company, which is heavily geared to hydro-electric production, to increase its overall output of electricity by more than 5 per cent.

Operating profits rose 16 per cent to Pta107.9bn in spite of a 3.63 per cut in Spanish electricity prices under plans agreed with the government for deregulating the industry. Iberdrola said it reduced its outstanding debt by Pta50.9bn in the period to Pta843.6bn. **David White, Madrid**

■ **Grupo Union Fenosa**, the Spanish electricity-based conglomerate, said yesterday its first-half net profit rose 5.4 per cent to Pta15.68bn, slightly below analysts' expectations. The group said first-half sales of Pta200bn were not comparable with last year's Pta172.55bn because of new accounting standards for electricity companies. Its listed parent company, electricity provider Union Fenosa, showed a net profit rise of 3.1 per cent. **AP-DJ, Madrid**

Branching out within bounds

Banca Popolare di Verona sticks with its roots, writes **Paul Betts**

Banca Popolare di Verona, one of Italy's largest regional co-operative banks, appears unconcerned by the financial turmoil in Asia. It recently opened a representative office in Hong Kong to support its small and medium sized corporate customers in their export drives.

"Many of our customers do business in the Far East: they sell ceramic tiles, marble and other products to China and other Asian countries," says Giorgio Zanotto, the bank chairman and a former mayor of Verona.

But if the bank is branching out east, Mr Zanotto quickly adds that its strategy remains firmly rooted in the wealthy and fast-growing regions of Veneto, Emilia Romagna and now Lombardy following its recent L1,500bn ($860m) acquisition from Crédit Lyonnais of Credito Bergamasco.

"The Bank of Italy believes that regional banks such as ours will have a role in the future market of European monetary union, and we want to continue to grow in our regional market," he says.

The co-operative bank has grown rapidly in the past five years through aggressive acquisitions. In 1993, it launched the first successful hostile bid in Italy – for Banco San Geminiano and San Prospero – to expand in the Emilia Romagna region.

It later took over Credito Bergamasco in Lombardy, fending off local rival Cassa di Risparmio di Verona, which is now part of the Unicredito banking group led by Milan's Credito Italiano.

Nor is its spree over. In June it listed on the Milan stock exchange, giving it the flexibility to finance future acquisitions with shares.

Although much larger financial groups have grown up around the Verona bank in the current wave of consolidation, Banca Popolare di Verona believes this trend plays into its hands. It argues that as banks become larger they risk losing touch with local customers.

> **'We have no intention of expanding further south than Bologna'**

"We have no intention of expanding further south than Bologna and we have no intention of acquiring troubled banks," says Mr Zanotto.

So why has it not itself become a takeover target?

With nearly 550 branches in some of the richest parts of the country, net profits of L197bn last year – expected to grow to L248bn this year – and total assets of more than L40,000bn, the bank would be an appetising morsel for one of the big new groups being formed in Italy.

As a regional co-operative, the bank is protected by its statutory rules making a hostile takeover complex and expensive.

Under these rules, shareholder votes are counted on a per-capita basis rather than a per-share basis. It would require 48,000 shareholders – even if some hold only a single share – to approve a takeover.

Unlike at other co-operative banks, employees have no voting rights. And no shareholder can hold more than 0.5 per cent.

Recent government attempts to change the statutory rules of these co-operative institutions failed because of powerful lobbying by managements. However, the government says it will eventually deal with the issue by proposing specific regulations for co-operative banks.

When that day comes, it could spark a new wave of corporate deals in Italian banking. As Credit Suisse First Boston points out in a recent study: "These banks are the perfect acquisition target for large Italian banks, thanks to their high regional market share, strong focus on retail banking and efficient cost structure."

هكذا من الأصل

Applied Power offers £207m for Rubicon

By Janette Owen

Applied Power, the acquisitive US engineering group, has made a £207m ($342m) recommended cash offer for Rubicon, which produces and assembles computer boxes.

Applied said the deal, underpinned by a $350m loan facility with Bank of America, would make it the leading global provider of tailor-made cabinets for electronic equipment.

Rubicon, which has four sites in Scotland, two in England, one in Ireland and two in the US, is sent technical equipment which it fits into boxes and casings that it has made to the customer's specifications. It also makes specialised magnets.

Applied is offering 235p in cash or loan notes for every Rubicon ordinary share, a 47 per cent premium over Friday's closing price, and 50p for each preference share. However, Applied plans not to pay the 4.9p final dividend proposed by Rubicon's board. Rubicon shares rose 65p to 225p.

This is the second foray into the UK engineering business this summer for Milwaukee-based Applied Power. In June it paid £115.5m for Vero, the electronic racks and enclosures group, after a long battle with Pentair, its US rival. It has also recently bought Zero, a US company which makes temperature control equipment for computers.

Applied Power made a pre-tax profit of $122m on sales of $1.416bn in the year to August. Richard Sim chairman, said the deal would further his company's global ambitions and would mean growth for Rubicon's operations. "Rubicon fits in well with our customers, many of whom have relocated to Scotland or Ireland. We are always looking for acquisitions close to our customer base."

Mr Sim said he could not rule out further European acquisitions, in the long term, to get close to Applied Power's telecommunications customers. He ruled out a challenge for Rubicon from Pentair.

Greg Johnson, analyst at Charterhouse, said that the Rubicon price was fair, but was lower than expected, because of market turbulence. "The only question now is whether Pentair will launch a bid as well."

Tim Wightman, Rubicon chief executive, who will continue to manage the company and take a greater role with Applied Power, said that the jobs of its 2,800 workers would be protected.

In March, Rubicon sold two of its divisions for £62m to a management buy-out. The disposal contributed to pre-tax losses of £18.8m for the year to May 31.

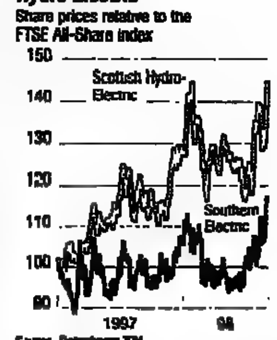
Applied was advised by Goldman Sachs and Rubicon by HSBC Investment Bank.

COMMENT

Electricity merger

There is only so long a company can wait for a generous American to charge over with a bid premium. Failing that, yesterday's merger provides a decent way forward for both Southern Electric and Scottish Hydro-Electric, especially for Southern, which winds up in control in line with its larger market capitalisation. The deal was billed as a no-premium merger, but Southern's shares were probably buoyed by some bid speculation. The main justification for the deal is that it removes the risk of volatility in electricity prices for both generator and supplier. Arguably, avoiding that risk is more important to electricity suppliers, such as Southern, which have slimmer margins to protect. Long-term supply contracts can achieve this as well, but are more expensive. The savings from removing risk are not huge, and alone would not have justified a chunky takeover premium, but here they are a plus.

Southern Electric/ Scottish-Hydro Electric
Share prices relative to the FTSE All-Share index



Source: Datastream/ICV

Meanwhile, Hydro gets a route to market for its power. With competition in the supply of electricity, this will no longer be a captive market. But there may be just enough inertia to prevent customers from defecting to marginally cheaper electricity providers. Both companies will also share some cost savings, which look less vulnerable to regulatory scrutiny than ones from a merger of two regional electricity companies. And if there are any suitors still out there for a rec, this deal should flush them out.

Technology and telecoms

The punchier the ratings, the heavier the falls when investors get jittery. The larger high technology stocks have fallen around 30 per cent or more from their highs. In telecommunications, the rout has mainly hit new arrivals such as Colt, Energis and Orange. The numbers may look scary, but not all of this year's gains in the sectors have been lost.

And despite the sell-off, the ratings are still not cheap. Next year's p/e ratios for high-tech stocks range from 25 to 50, which still implies challenging earnings assumptions. The question for investors is how vulnerable these earnings are to recession. Spending on telecoms and technology may be less discretionary than last time round, but it has not become immune from the economic cycle. The bad news is far from over.

Wallis to head Therapeutic Antibodies

By Jonathan Guthrie

Stuart Wallis, the former chief executive of Fisons, the pharmaceuticals business, was yesterday appointed chairman of Therapeutic Antibodies, a biotechnology company which uses sheep to manufacture rattlesnake serum.

Mr Wallis, 52, who has a formidable reputation as a company doctor, has the job of restoring the health of the cash-strapped business, which is London-listed but based in Nashville, Tennessee.

The company announced yesterday that seven directors had resigned "amicably" in a bid to simplify the board structure and make it more attractive to UK investors. They included Professor John Landon, one of the company's founders and its executive director for research and development, who was paid £120,000 ($198,000) last year.

Five of the seven were non-executives paid in share options. Mr Wallis said they were members of Nashville's country club, and had been encouraged to invest in the business by Martin Brown, the previous chairman. Mr Brown was formerly head of Jack Daniels, the Tennessee-based whisky company.

The immediate problem facing Mr Wallis and Andrew Heath, appointed chief executive in May, is that the lossmaking business will run out of money next month. Therapeutic Antibodies, which reports results in dollars, had just $3.27m in cash at the end of June, but spent $20m in 1997. The company subsequently raised $3.15m in interim funding from US private investors.

Mr Wallis hopes to do better in the UK. However, he believes that to appeal to the City the company needs to move its headquarters to the UK, where an as-yet-to-be-appointed finance director will be based, and have a smaller, more professional board.

The company hopes to raise £20m, which it said will support it until it breaks even. Analysts believe this will be in 2001.

Shares in Therapeutic Antibodies have tumbled from £5.25 at flotation two years ago to less than £1 recently, reflecting a loss of confidence both in the company and the biotech sector as a whole.

The shares rose 2½p to 77½p yesterday. Analysts welcomed the board changes.

CRH plans large acquisitions

By Jonathan Guthrie

CRH, the Irish building materials group, is planning to exploit falling asset prices in the UK and Continental Europe by making substantial acquisitions. Don Godson, chief executive, said it could spend up to I£500m ($695m).

He said the balance sheet of the group was "under-leveraged", with gearing of 39 per cent: "I suspect it should be 60 to 70 per cent at current interest rates."

The group yesterday unveiled a 31 per cent rise in pre-tax profits to I£85.2m, well ahead of analysts' forecasts of I£75m-I£78m. The improvement was driven by strong demand for building products in the US, fuelled by mild weather in CRH's north-eastern stronghold. Trading profits in the Americas more than doubled to £29.8m.

Howard Seymour, a building materials analyst at ABN Amro, the broker, said: "They have been expanding strongly in the US and are now reaping the fruits of this."

CRH has grown into one of the world's biggest building materials businesses through a programme of small, bolt-on acquisitions which, combined with capital investment, absorb I£100m-I£300m a year. The total in the six months to June 30 was I£117m, with a similar level of expenditure expected in the second half.

Mr Godson said: "Every now and again, we augment that [programme] with acquisitions that offer greater strategic fit ... that would be the upside of the current shenanigans in the marketplace."

He said CRH had underbid for Hall & Co, the builders merchant which RMC Group agreed to sell to Wolseley last month for £121m.

CRH is keen to expand the activities of Keyline, its own UK builders merchant. Analysts see this as a poor performer, but Mr Godson said: "Performance and net assets are coming into line with what we want."

Don Godson: under-leveraged balance sheet — Ashley Ashwood

The smallest increase was in continental Europe, where trading profits were only 8 per cent higher.

Group turnover was 27 per cent up at I£1.81bn. Interest payments were covered 8.17 times by operating profits.

Barclays bites the Russian bullet with losses of $540m

Chief executive unfazed by exposure to economic collapse and says it is 'all part of the risk business', writes **Clay Harris**

For a man who had just announced charges and losses totalling £325m ($540m) before tax, as a result of his bank's direct exposure to Russia and collateral damage in other markets, Barclays chief executive Martin Taylor was remarkably relaxed yesterday.

After putting Barclays' net Russian exposure of £340m in the context of its roughly £230bn of assets, he said this what banking was all about. "We're in the risk business. We take positions. We lend money. We get most of it back."

Nevertheless, it was a sensitive moment – "maddening for all of us" – for Mr Taylor and Robert Diamond, chief executive of Barclays Capital, the subsidiary responsible for most of the Russian exposure.

Coming up to the first anniversary of Barclays' somewhat messy retreat from full-fledged investment banking that left Barclays Capital as a stand-alone debt markets operation, such an embarrassment was the last thing either man needed.

But Mr Taylor, who had been "hugely encouraged" by progress at Barclays Capital, was adamant: "I really don't see why the collapse of governance in one country should change my view or the board's view about what business the bank ought to be in."

Mr Diamond said "any prudent business person" would be reviewing business plans now, although he gave no reason to expect immediate drastic changes.

"I think we can learn interesting lessons from this event, which would stop short of never, ever doing this again," Mr Taylor said. He made a virtue yesterday of showing his maths – in contrast to other international banks which had made earlier and muddier statements.

He said he had told executives last week: "I don't want to see a provision that isn't a multiple of £50m." Any more detailed figure would be spuriously precise, he said. The pre-tax charge of £250m would hit net profits by £150m.

Barclays' Russian exposure is made up of four elements – in descending order: treasury bills (GKOs), financial counterparties, bank lines and commercial credits. It had written all down to 10 per cent of their dollar value.

Mr Taylor said Barclays was confident of its hedging arrangements with Western counterparties, but it would be "imprudent to count on" hedging with Russian institutions. "If the Russian hedges had held, we would have had substantial protection," he said.

"The problem here wasn't the size of the exposure, but the event of the default," Mr Taylor said. In fact, Barclays had not reached its "country limit" for exposure to Russia.

At £340m, the size of its net exposure to Russia was not out of line with that in other emerging markets. Barclays' exposure to the Asia's "IMF three" – Indonesia, South Korea and Thailand – had fallen from £1.2bn at December 31 to £900m, or an average of £300m, at June 30.

● National Westminster Bank said it was "comfortable" with exposure to Russia, which is believed to be less than £100m. Lloyds TSB said its exposure was "very tiny".

Volvo and Henlys plan Mexican buy

By Haig Simonian in Hanover

Volvo yesterday underlined the importance of its relationship with Henlys, the UK bus group battling with Mayflower for control of Dennis, by revealing that the two companies were poised to make their third big investment in North America.

Björn Larsson, head of the Swedish group's bus division, said the two were in advanced talks to buy MASA, the biggest coachbuilder in Mexico. Privately owned MASA has more than 50 per cent of the country's coach market, which exceeds 4,000 vehicles a year.

Mr Larsson dismissed speculation that Volvo's decision to buy 10 per cent of Henlys could trigger an investigation by the Office of Fair Trading on competition grounds. "We have taken the best advice you can get in that regard", he said. Volvo yesterday said it had lifted its stake in Henlys to about 9.2 per cent.

Speaking at the Hanover truck show, Mr Larsson reminded Mayflower it would would have to continue working with Volvo, whatever the outcome of the takeover battle. "We should all remember there is light after the fight, and you should not sling too much mud."

He noted that customers buying Volvo bus chassis most commonly used Mayflower's Walter Alexander subsidiary to build bodies for their vehicles.

Mr Larsson declined to reveal a price for the Mexican acquisition, but said it should be completed by the end of this year. Volvo and Henlys would aim to develop MASA's exports to the US. MASA's foreign sales are currently concentrated on neighbouring countries in central America.

North American co-operation is the main reason behind Volvo's support for Henlys in its bid for Dennis. Buying Dennis would allow Volvo and Henlys to expand their North American bus range by adding adapted versions of its existing British mid-sized buses to their bigger, heavier vehicles.

North American demand for mid-sized buses weighing less than 12 tonnes is expected to flourish, and Volvo currently had no suitable products, said Mr Larsson.

Mayflower raises stake in Dennis

By John Griffiths

Mayflower, the engineering group, has bought a further 3.4 per cent of Dennis, the bus and specialist vehicle builder for which it is seeking to outbid arch-rival Henlys. It now holds 4.9 per cent.

With share prices reeling under the fall-out of the Asian and Russian financial crises, the 11½p drop in Henlys' share price yesterday to 457p reduced the notional value of its offer for Dennis to £266m ($439m).

This is still 4.4 per cent higher than Mayflower's 450p per share all-cash offer, valuing Dennis at £255m, but well below the £309m valuation on the basis of Henlys' 565p share price at the time the offer was made.

Mayflower, whose own shares fell 6¼p yesterday to 159½p, gave no indication that it would consider raising its offer.

Mayflower's purchase of further shares in Dennis – at 450p a share – compares with a closing price for Dennis yesterday of 456p, down 9p.

Mayflower last night said that the fall showed institutions were "bailing out" of Henlys' recommended shares-plus-cash bid.

Mayflower, meanwhile, yesterday paid £10.4m cash purchase of the automotive stamping, tooling and exhaust system manufacturing businesses of Roth Technik Abgastechnologie, a southern Germany-based engineering group.

Bunzl overcomes falling prices

By Jonathan Ford

Bunzl, the paper and packaging distribution group, weathered the effects of price deflation and sterling's strength to lift interim operating profits 6 per cent to £67.4m ($111.2m).

Falling prices for paper and plastic packaging, driven by a decline in raw material prices, left Bunzl reliant on volume growth to increase profits, while the strong pound squeezed profits on translation.

Anthony Habgood, chairman, said the group had not been hit by falling prices because the rate at which it turned over stock – once a month – was among the highest in the packaging distribution industry.

Excluding exceptional profits from the sale of discontinued businesses, operating profits grew 16 per cent to £66.9m on sales 12 per cent higher at £953.5m. At constant exchange rates, operating profits were up 20 per cent.

After interest of £4.6m (£1.4m) pre-tax profits were £62.8m (£62.4m).

Bunzl's disposables business, which accounts for 60 per cent of group sales, achieved volume growth of 6.5 per cent in the first half.

The business, which distributes paper and plastic packaging to supermarkets and caterers, was helped in the US by strong demand for home replacement meals – takeaway meals served in supermarkets. It made profits of £37.2m (£33.5m) on sales of £578.8m (£501.4m).

The tapes and filters division, which produces filters and packaging for the tobacco industry, increased profits from £10.7m to £14.7m on sales of £104.3m (£83.7m), helped by acquisitions.

Bunzl spent £34m on acquisitions in the period, partly offset by £15m of disposals. Mr Habgood said the group would continue to look for add-on purchases. Gearing fell to 46.6 per cent against a year-end position of 53.2 per cent.

Bunzl declared an interim dividend of 2.5p (2.3p), which is to be paid as a foreign income dividend.

First Leisure sells Blackpool Tower

By Scheherazade Daneshkhu

Blackpool Tower, the British seaside landmark, was one of a number of attractions sold yesterday by First Leisure, the nightclubs, fitness and bowling group, for £74m ($122m) cash.

The buyer is Leisure Parcs, a company formed by Trevor Hemmings, the former head of Pontin's holiday camps, who has been linked to a possible takeover bid for Vymura, the wallpaper group.

First Leisure, criticised last year for lack of focus after a period of under-performance, put its resorts division up for sale in April after selling its bingo operations. Michael Grade, executive chairman, said the £112m raised from the two disposals would reduce net debt and allow the group to concentrate on its three core businesses.

Also included in the sale were piers at Eastbourne, Blackpool and Southsea and the Winter Gardens conference centre in Blackpool. The businesses, with a book value of £77.3m, made operating profits of £6.2m on sales of £30.9m in the year to October 31. The shares closed 16½p lower at 233½p.

Singer may buy back 20m shares

By Clay Harris

Singer & Friedlander, the investment banking and fund management group, increased pre-tax profits by nearly 9 per cent, from £29.1m to £31.6m ($52.1m), in the six months to June 30. The group also said it would seek shareholders' approval to buy back up to 20m shares, 10 per cent of the total.

Collins Stewart, Singer's UK institutional agency broker, increased interim operating profits to £7.3m, against £4m, and a full-year result of £8.7m. Profits were also up in property, to £3.45m (£2.81m), and in merchant banking, to £5.72m (£5.34m). But Carnegie, the Stockholm-based stockbroker of which Singer owns 55 per cent, saw interim profits slip to £15.1m (£17.7m), a result made worse by the strength of sterling.

Asset management activities also suffered a fall in profits to £4.8m (£5.34m). Improvement at Singer & Friedlander Investment Management was offset by a decline in the retail division and losses in the capital markets unit.

Singer is buying out share options which entitled 18 senior Collins Stewart executives to about half of the broker's equity. It has paid £30m for two-thirds of the holding; £15m plus interest will be paid for the rest in 2001. Singer said the change would result in an accretion of profits of £6.2m.

Goodwill over Collins Stewart's net asset value of £8.2m at June 30 would be written off over 20 years, anticipating the new FRS10 accounting standard.

RESULTS

		Turnover (£m)		Pre-tax profit (£m)		EPS (p)		Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
BCH	6 mths to Jun 30	31.9	(25.2)	1.98	(1.49)	8.7†	(10.9)	2.25	Oct 23	-	-	0.8
Bunzl	6 mths to June 30	954	(848)	62.8	(62.4)	9	(8)	2.5♣	Jan 4	2.3♣	-	6.8♣
Calderburn	6 mths to June 30	24	(20)	2.57	(1.33)	5.03	(2.59)	0.7	Oct 30	0.4	-	1.2
Castle Mill	Yr to Feb 28	2.67	(3.75)	0.31L♠	(0.64♠)	0.26L	(1.11)	nil	-	nil	nil	nil
CRH ‡	6 mths to June 30※	1,806	(1,420)	85.25	(65.21)	16.7	(13.1)	4	Nov 6	3.45	-	11.7
Eclipse Blinds	6 mths to June 30	24.1	(22.6)	3.44	(2.93♠)	4.95	(4.06)	1.32	Oct 1	1.2	-	3.6
Finlay (James)	6 mths to June 30	117	(79.7)	8.59	(2.57)	5.7	(1.8)	2	Dec 31	1.8	-	4.15
Hartford φ	8½ mths to June 30	2.48	(-)	0.108	(-)	0.04	(-)	-	-	-	-	-
Heritage Baths	Yr to May 31	22	(18.7)	4.78	(3.82)	18.3	(14.4)	5	Oct 21	4.2	7.8	6.4
IBC	6 mths to June 30	74	(67)	8.11♠	(8.33)	12.6	(15.7)	4.1	Nov 11	3.7	-	10.5
London Bridge	6 mths to June 30	8.05	(4.1)	2.71	(0.953♠)	6.31†	(2.51)	1.5	Oct 30	-	-	-
Macro4	Yr to June 30	24.2	(23.5)	10.06	(10.3)	33.7	(33.8)	15.9	Nov 2	15.5	26.1	25.2
Marshalls	6 mths to June 30	134	(125)	19	(11.5)	8.98	(4.65)	2.33	Dec 1	1.5	-	4‡‡
Perkins Foods	6 mths to June 30	241	(342)	44.4♥	(14.1)	23.9	(4.8)	1.8♣	Oct 23	1.8♣	-	4.6♣
Persimmon	6 mths to June 30	281	(256)	28.1	(23.3)	11.8	(10)	3.3	Oct 30	3.2	-	10
Pilot Tech φ	6 mths to June 30	8.6	(8.15)	0.200	(0.577)	0.44	(1.59)	-	-	-	-	-
Singer & F'lander	6 mths to June 30※	-	(-)	26.9*♥	(21.2)	8.73†	(6.93)	2.35	Nov 2	2.13	-	5.35

Investment Trusts		NAV (p)		Attributable Earnings (£m)		EPS (p)		Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
Atholney	6 mths to June 30	94.9	(83.8)	0.002	(0.007)	0.1	(0.4)	-	-	-	-	1.1
Edinburgh Income	3 mths to July 31	73.7	(76.2)	0.092	(-)	0.61	(-)	0.9	Oct 6	1	-	4
Gartmore Fled'g	18 mths to June 30♦	136.71	(115.5§§)	0.791	(0.894)	2.22	(1.95)	1	Sep 30	1	1.8	1.6
M&G Recovery	3 mths to June 30	110.52	(73.2)	2.29	(2.52)	1.69	(1.86)	1	Sept 25	1	-	4.9
Scottish Eastern	6 mths to July 31	153.9	(140.8☆)	10	(9.31)	1.58	(1.47)	0.68★	Oct 15	0.65	-	2.14

Earnings shown basic. Dividends shown net. Figures in brackets are for corresponding period. ♠After exceptional charge. ♥After exceptional credit. †On increased capital. φAim stock. ‡Irish currency. ‡‡For nine months. ※Comparatives restated. *After minorities. §§At December 31 1996. ♦Comparatives for year to December 31 1995. ♣Foreign income dividend. ★0.48p payable as foreign income dividend. ☆At January 31 1998.

Bridle sweet talk: Kelly Marks, who began the courses two years ago, was surprised when students began drawing comparisons with the workplace Big Pictures

MANAGEMENT OFFBEAT EDUCATIONAL IDEAS

Horses for training courses

Jane Martinson tries out the art of 'whispering' to four-legged friends to see if it has lessons for the corporate world

"Whatever happens," said a colleague as I left the office for the weekend, "don't try to snort up my nose when you get back."

Within a few hours of embarking on my two-day course to learn the art of "horse whispering", I had learned two basic facts. One was that it had nothing to do with talking, or indeed whispering, to horses. The second was that Monty Roberts, one of the men credited with starting the latest be-nice-to-horses craze, believes you should snort up a horse's nose only if you want your head bitten off.

Stripped of my preconceptions I was left standing in a 50ft round pen with an 18-month-old horse called Bonus.

The point of the course is to "join up" with a horse, a phrase redolent of the California ranch from which it came. Roughly translated, it meant that I had to make Bonus, an ungainly black and white shire, run in circles and then follow me around, led only by a desire to do what I wanted.

He had to be so keen to do my bidding that he would let me saddle him up and put a rider on his back. And I would achieve all this using a combination of body language and a long, soft rope.

Instead of the prancing black stallion I had envisaged, Bonus was almost immobile. All he wanted to do was gaze at his friends cavorting in a nearby field.

In front of my 10 fellow students I was moved to use so much body language to attract his attention that Kelly Marks, the trainer and Monty Roberts acolyte, compared me to a former pop star who on one of the courses danced the flamenco to make a horse move. Only much later did I learn that the former popster was called Arthur and it was not a compliment.

I finally got the attention of Bonus by snapping my fingers and then adopting the quiet but determined walk I had been taught. Bonus was so surprised that he put his head on my shoulder and needed no further instruction to follow me anywhere. By the time a rider was on his back, Bonus had become Black (and White) Beauty and I was hooked.

But what did any of this have to do with management theory? I wanted to find out why the experience was about to be offered as the first hands-on "horse whispering" management course in the world, which has already attracted the interest of companies including PriceWaterhouseCoopers, the accountancy firm.

I had arrived on the course in Oxfordshire ready to believe the answer was very little, having listened to the homespun psychobabble of Mr Roberts's training video. The film's commentary talks of US companies as diverse as Merrill Lynch, Ford and AT&T watching the man and his horse at work in order to "better understand the human mind". It also asks what horses would say if they could talk to humans about their behaviour. It suggests a warning along the lines of "you humans don't look each other in the eye".

Letting my eyes wander for a nanosecond had the horse turning against me

Such anthropomorphic advice leaves me cold, as did the get-back-to-nature message of Robert Redford's new film *The Horse Whisperer*, which has prompted some controversy about the training methods it used.

But by the time I took my second horse into the ring – a big, nervous three-year-old called Princess – I had realised that all I needed was to focus on the task and let nothing distract me or the horse. Letting my eyes wander for a nanosecond had the horse quivering and turning against me, while sending mixed signals was worse. I had also learned that shouting got me nowhere.

Roy Scott, a fellow student and business solutions manager with BT, the telecommunications group, said: "This is not exactly rocket science, but it's amazing how quickly you forget the basic skills."

His experience on the course taught him that "people get so wrapped up in the process that they forget how to communicate". Worrying about the rope had the horse dozing off.

There were only a handful of stereotypical "horsey types" on the course. Susan (not her real name) was a stressed-out corporate lawyer from New York who had not been near a horse for 20 years before she decided to spend a weekend recapturing an old pleasure.

By Sunday afternoon she said she felt "humbled" by her experience. A difficult first attempt had left her in tears and ready to give up. "I felt so intimidated," she said. "I'm not scared of horses, but I am terrified of not knowing how to do something in front of people.

"Look, I'm not even used to listening to people. I normally boss them around and tell them what to do. I really did not know how to do this and I'm not used to that."

Susan thought the course would be great for management training. "This course is for remedial people, not bad horses," she said.

Kelly Marks, who started the courses two years ago for "horsey types", was surprised when they attracted such a wide range of people who began drawing comparisons with the workplace.

One such student was Nick Jacobs, who is working on a pilot course for the corporate sector, to be launched this year. Mr Jacobs, managing director of Rowan Asset Management, said he had been attracted to the ideas of Monty Roberts after watching a television programme.

He described joining up as "being all about sending clear messages, interpreting the feedback and then closing the deal. It's that simple". It was also great fun and did not involve getting anywhere near nostrils.

Intelligent Horsemanship, Kelly Marks, 01488 71300. Tickets to Monty Roberts's UK demonstrations in September, 01638 311200.

JOHN KAY

Would I rather be Henry VIII?

It's a stupid question – almost as silly as the way we measure inflation and economic growth

If you are reading this, Linda, I hope you still remember the evening we spent together in Oxford in the summer of 1972. We dined at the Elizabeth restaurant. We enjoyed the piperade, the supreme de volaille, and the crème brûlée, and much else.

I had exactly the same meal there a few weeks ago. I have changed and so, I expect, have you. But the Elizabeth has not. The décor is just as it was, the service is still classically impeccable and the piperade, the volaille and the crème brûlée are still on the menu. The coffee is brewed by the same vacuum process that brewed it in 1972.

But the price is very different. I don't have the bill for our dinner, but an old *Good Food Guide* tells me that I could have bought that meal in 1968 for 31 shillings (or £1.55 ($2.55) as it became on decimalisation). This year, it cost me £23.

In 1972, neither Linda nor I had eaten a hamburger. McDonald's arrived in the UK in 1974 and a Big Mac then cost 45p. Today you will pay £1.84, an annual inflation rate of 6 per cent. These comparisons are freaks. The curious time warp that envelopes the Elizabeth, and the relentless standardisation of McDonald's, enable us to look at these price changes with confidence that we are comparing like with like. Most of the modern economy is not like that.

If you had gone to Australia in 1960, you would probably have gone by sea. A shared cabin on P&O would have cost you £132. Today Qantas will fly you to Sydney for £791, a price rise of 5 per cent per annum. But what you get is a very different product. I am willing to bet that faced with the choice of a six week journey by sea for £132 or a 24-hour flight at £791, most people would choose Qantas. The improvement in quality more than offsets the increase in cost. When we recognise this, we see the price of getting to Australia has not gone up. It has come down.

A brilliant essay by the American economist Bill Nordhaus provides a good illustration of the issues. The price indices we see reported measure changes in the price of light bulbs and of electricity. But we don't buy light bulbs because we want light bulbs. We buy light bulbs because we want light. Nordhaus showed that if you measure the price of light, rather than the price of the things you use to make light, the difference is significant. The price of lighting things has moved in line with general inflation: the price of light itself has fallen.

Health budgets around the world are under pressure from the escalating cost of medical services. But are these costs really rising? Evelyn de Rothschild, probably then the richest man in the world, died prematurely in 1836 despite the best medical attention money could buy. He died from an infection which could today be cured by drugs available for a few pence at any pharmacy. The cost of medicaments may have gone up, but the cost – literally – of living has come down.

But these arguments do not all go one way. When I bought Linda dinner in 1972, I was not really purchasing a supreme de volaille. I was buying her the best dinner Oxford could offer. To do that today, I would have to take her to the Manoir aux Quat'Saisons, and pay the £72 that M. Blanc demands for a meal. That is equivalent to inflation of 16 per cent per cent per annum. Fine dinners are a positional good – their value rests on the fact that not everyone can afford them, and their price rises with the incomes of the people who can.

Henry suffered agonies from piles and could not get to Bristol in less than a week

These problems are not minor quibbles. The developments I describe – the creation of new, higher quality restaurants, the substitution of new forms of transport for old, advances in medical technology, and improvements in lighting efficiency – are typical of what has happened right across the economy. And that is why the price indices we use are hedged by doubts.

As it happens, the cost of a meal at the Elizabeth, rising at 11 per cent a year, almost exactly matches the movement in the catering component of the UK's Retail Prices Index. But I could reduce catering inflation to 6 per cent by looking at the price of a Big Mac or increase it to 16 per cent by measuring the change in the cost of a very good evening out. You could present a good argument for adopting any of these figures.

And if we are so uncertain about what has really happened to prices, we are therefore uncertain about what has really happened to output and economic growth. How do we compare a bundle of output that consists of sea crossings, slide rules and Ealing Comedies with one made up of package holidays, computers and televisions? Only by making a decision as to how many Ealing Comedies equal one television.

I don't know how to do that and nor does the Office for National Statistics.

It is tempting to argue that we could solve these problems if we were more careful in the way we compile economic statistics. There is not much doubt that if we paid more attention to quality improvements and the consequences of the introduction of new goods the reported rate of inflation would be lower – probably much lower – and the reported rate of growth would be higher – probably much higher.

But the issue goes deeper. Am I better or worse off than Henry VIII? True, I have fewer wives, servants and palaces, but Henry suffered agonies from piles and could not get to Bristol in less than a week.

Asking whether I would rather be me or Henry VIII is as stupid as asking whether I would be happier if I were a sheep or a fly, and the question is not made less stupid by dressing it up in figures.

When someone tells you that inflation is 3.7 per cent and growth 2.1 per cent, be very wary of believing that these numbers tell you what has happened either to the cost or the standard of living.

The author is the Peter Moores Director of the Said Business School at Oxford University and a director of London Economics. This column appears fortnightly.

INFORMATION TECHNOLOGY BRIEFS

Pioneer seizes lead in big race for thin screen

In the competition to deliver the biggest, thinnest, highest definition television screen, plasma technology has the edge and Japanese electronics groups are leading the way.

Pioneer, which already has a range of VGA plasma screens up to 40in, is to launch a 50in model – the PDP-501MX – which it claims will be the world's largest and highest definition plasma screen.

The screen is the first of its size to feature an XGA panel with 1,280 horizontal by 768 vertical pixels. Pioneer claims it is 2.5 times sharper than any other VGA plasma screen on the market.

It is only 9.8cm deep with a 160° viewing angle which, its manufacturer says, is ideal for boardrooms and presentation suites.
www.pioneer.co.jp

Net telephony: the latest fax

As the use of the internet for voice telephony continues to grow, electronics manufacturers are looking for other ways to exploit it.

Sending fax messages is one which manufacturers have begun to address, with features such as fax-on-demand and a feature that allows callers to retrieve product information or price lists.

This month Ricoh launches a plain paper machine – Fax 4800L – which has features including fax-on-demand, an 80Mb hard disk for data storage and data handling capabilities for increased productivity and reduced costs.

The machine, which can be hooked up to a digital ISDN line to increase delivery speeds, also has the option of a second fax line to allow simultaneous sending and receiving. It costs £2,499.
www.ricoh-europe.com

Alcatel offers alarm service

When something goes wrong or help is required, wireless telecommunications often provide the quickest way to alert people.

Alcatel, the French telecommunication group, has launched the 4400 Notification Server, a security management device linked to a voice communication system, which can automatically transmit alarms and messages to Alcatel's 4070 digital cordless (DECT) phones.

The system is already in use in Stedelijk Ziekenhuis, the city hospital in Roeselare, Belgium, where it is configured to call the mobile handsets of medical staff when patients request service from their beds, or when monitors detect changes.

The notification server, which is expected to have many applications including enterprise security management and equipment maintenance, can be configured to ring one or more DECT handsets in the case of an alarm. Users are notified of the nature, urgency and origin of the alarm.
www.alcatel.com

Screen test: Mr Kawabata with the high definition PDP-501MX

System on a chip in sight

Chip designers continue to integrate more and more functionality into their creations, leading to the point at which entire systems can be mounted on a single semiconductor device: the "system on a chip". At the same time, shortening product lifecyles mean these increasingly complex LSI (large scale integrated) circuits must be designed ever more quickly.

Designing a LSI chip is a three-stage process beginning with "behavioural" design, then logic design and finally layout design. In order to speed the process, software has been used to automate layout design and logic synthesis.

NEC, the Japanese electronics group, claims to have developed software that can automate the first step – behavioural design.

NEC researchers claim their behavioural synthesis system enables users to design chips automatically from the "C" language descriptions designed to operate the circuit.
www.nec.com

Paul Taylor

مكرر من الاصل

EURO PRICES

EQUITIES

Battered bourses refuse to crumble

EUROPEAN OVERVIEW

By Philip Coggan, Markets Editor

Europe's stock markets took an inevitable battering at the opening after Wall Street's big loss on Monday, but then proved reasonably resilient in the face of a very volatile US market.

The FTSE Eurotop 100 and 300 indices, which include a significant weighting of UK stocks, had a poor day as the London market caught up with Monday's losses in the rest of the region. The 100 index fell 35.15 or 1.4 per cent to 2,477.18 and the 300 dropped 13.5 to 1,075.49.

The FTSE Ebloc 100, which focuses on countries planning to join the single currency and thus excludes UK stocks, held up far better, falling 3.9 points or 0.4 per cent to 890.72.

The worst performing sector of the day was oil exploration, which dropped 5.5 per cent, with Enterprise Oil falling Ecu 0.4 to Ecu 5.24 ahead of results tomorrow.

Financial stocks continued to be volatile in the light of the Russian crisis. Barclays, which outlined its Russian losses yesterday, dropped Ecu 1.3 to Ecu 19.9 but the German banks, which have seen the biggest sell-offs since the Russian debt restructuring, managed some modest rebounds. Deutsche was up Ecu 2.4 to Ecu 57.52.

The sheer scale of the decline in European markets is prompting some analysts to hope that the end may be in sight.

Mark Howdle, European portfolio strategist at Salomon Smith Barney, points out that Europe has already experienced its largest correction since 1990.

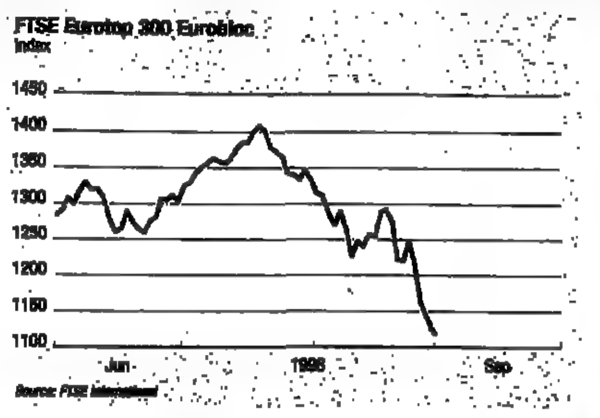
"While equity prices have fallen, US and core European bond yields have hit new post-war lows. This has taken the relative valuation of European equities against bonds to the most extreme levels of the past decade," says Mr Howdle.

"The implied long run growth in earnings and dividends is now at its lowest level for 12 years. Assuming a constant risk premium of 3 per cent, the market is now priced for only 5 per cent growth to perpetuity."

Mr Howdle adds: "The risks to global growth have risen appreciably over the past couple of months. But we are still not convinced that a recessionary Tsunamai wave is heading for Europe's shores.

"In which case, European equities look extremely attractive against bonds at present."

FTSE Eurotop 300 Eurobloc
Index



Source: FTSE International

III THREE MONTH EURO FUTURES (LIFFE) Ecu1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Oct	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dec	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Jun	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

III THREE MONTH EURO OPTIONS (LIFFE) Ecu1m points of 100%

Strike Price	CALLS Sep	Oct	Nov	Dec	PUTS Sep	Oct	Nov	Dec
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Est. vol. total, Calls 0 Puts 0. Previous day's open int., Calls 0 Puts 0

III FTSE EUROTOP 100 INDEX FUTURES (LIFFE) Ecu20 per full index point

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dec	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

III EURO STYLE FTSE EUROTOP 100 INDEX OPTION (AEX) Ecu10 per index point

[illegible]

Est. vol. total. Prev day's open interest total. Premiums shown are based on settlement prices.

OTHER INDICES

	Sep 1	Aug 31	Aug 28	1998 High	1998 Low	Since compilation High	Since compilation Low
DJ Stoxx 50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DJ Euro St. 50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MSCI Europe	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: Datastream of FT Information. [illegible]

FTSE Actuaries Share Indices — European series

Produced in conjunction with the Faculty and Institute of Actuaries

September 01

National & Regional Markets	Ecu Index	Day's %	change points	Yield gross %	xd adj ytd	Total rate (Ecu)
FTSE Eurotop 300	1075.49	–1.24	–13.50	2.65	22.12	[illegible]
FTSE Eurotop 100	2477.18	–1.40	–35.15	2.67	32.84	885.30
FTSE Ebloc 100	890.72	–0.44	–3.90	2.26	13.25	902.30
FTSE Eurotop 300 Regions						
Eurobloc	1119.78	–0.55	–6.20	2.28	19.61	1141.68
UK	1005.02	–2.02	–20.68	3.33	28.79	1048.24
Europe Ex-Eurobloc	1040.83	–1.93	–20.53	3.07	23.60	1073.09
Europe Ex-UK	1116.37	[illegible]	[illegible]	2.32	18.38	[illegible]
FTSE Eurotop Industry Sectors						
RESOURCES	772.91	–1.80	–14.16	3.74	21.61	801.16
Extractive Industries	624.42	–3.88	–25.18	4.74	0.00	624.42
Oil, Integrated	748.89	–1.65	–12.58	3.70	16.09	760.58
Oil, Exploration & Prod	616.54	–5.55	–35.87	3.87	0.00	616.54
GENERAL INDUSTRIES	895.41	–0.44	–4.39	2.85	19.50	1014.50
Construction	905.19	–1.28	–11.72	2.82	11.06	915.72
Building Matls & Merchs	833.89	+0.29	+2.37	3.19	7.65	839.69
Chemicals	833.24	–0.82	–6.71	3.00	16.87	847.34
Diversified Industrials	873.67	+1.44	+12.38	2.01	17.46	868.86
Electronic & Elect Equip	852.62	–1.49	–12.90	1.99	4.89	856.74
Engineering	828.01	–0.58	–4.82	4.00	9.67	835.78
Paper, Pckg & Printing	741.50	+0.48	+3.53	3.18	1.21	742.42
CONSUMER GOODS	1068.55	–1.72	–18.70	1.80	14.07	1094.28
Automobiles	896.99	–0.42	–3.80	2.89	10.25	905.31
Alcoholic Beverages	873.48	+1.58	+13.83	2.82	5.82	878.70
Food Producers	890.69	–1.54	–13.98	1.82	9.13	868.55
Household Goods & Textls	973.86	–1.30	–12.79	2.02	7.01	980.22
Healthcare	910.20	+3.20	+28.28	1.34	9.52	919.45
Pharmaceuticals	936.21	–2.45	–23.47	1.40	4.27	940.30
Tobacco	884.95	–1.29	–12.86	4.36	1.51	886.80
SERVICES	1129.47	–0.99	–11.32	2.38	20.47	1158.30
Distribution	802.33	+0.80	+6.36	2.77	11.37	811.34
Leisure & Hotels	723.85	–3.48	–26.08	3.50	10.42	731.53
Media	925.55	–0.78	–7.31	2.56	9.63	934.36
Retailers, Food	1003.18	+1.44	+14.26	3.03	10.70	1014.10
Retailers, General	1008.17	+2.57	+25.22	3.47	16.53	1024.59
Telecommunications	1040.59	–2.47	–26.39	1.95	12.49	1052.71
Breweries, Pubs & Rests	748.09	–3.63	–28.21	3.72	14.20	759.48
Support Services	915.83	+0.08	+0.72	1.52	5.66	921.05
Transport	903.24	–1.30	–11.88	2.73	11.78	913.34
Information Technology	1084.93	–1.91	–21.17	0.38	2.23	1087.40
UTILITIES	1299.97	–0.37	–4.82	3.44	53.32	1370.53
Electricity	981.53	+0.81	+7.90	3.61	26.23	1007.74
Gas Distribution	984.44	–3.68	–37.64	1.90	84.81	1075.11
Water	1044.24	–0.68	–7.19	5.03	36.72	1084.12
FINANCIALS	1163.61	–1.57	–18.59	2.86	26.40	1193.68
Banks, Retail	813.37	–1.82	–15.04	3.65	12.52	823.77
Insurance	880.33	–0.80	–7.11	1.59	11.45	890.66
Life Insurance	1056.73	–2.30	–24.92	1.62	9.10	1067.82
Other Financial	855.00	–4.19	–37.40	2.39	14.08	866.09
Investment Companies	905.77	–1.04	–9.54	2.85	20.86	923.72
Property	775.98	+2.99	+22.53	3.59	16.01	790.24

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FTSE EUROTOP 300

ALCOHOLIC BEVERAGES · AUTOMOBILES · BANKS RETAIL · BREWERIES, PUBS & RESTAURANTS · BUILDING MATERIALS & MERCHANTS · CHEMICALS · CONSTRUCTION · DISTRIBUTORS · DIVERSIFIED INDUSTRIALS · ELECTRICITY · ELECTRONIC & ELECTRICAL EQPT · ENGINEERING · EXTRACTIVE INDUSTRIES · FOOD PRODUCERS · GAS DISTRIBUTION · HEALTH CARE · HOUSEHOLD GOODS & TEXTILES · INFORMATION TECHNOLOGY · INSURANCE · INVESTMENT COMPANIES · LEISURE & HOTELS · LIFE INSURANCE · MEDIA · OIL, EXPLORATION & PRODUCTION · OIL, INTEGRATED · OTHER FINANCIAL · PAPER PACKAGING & PRINTING · PHARMACEUTICALS · PROPERTY · RETAILERS, FOOD · RETAILERS, GENERAL · SUPPORT SERVICES · TELECOMMUNICATIONS · TOBACCO · TRANSPORT · WATER

Name	Price (Ecu)	Chge + or -	Mkt cap Ecu(bn)	Yld (x)	Yld
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes: Price and market capitalisation supplied by FTSE International. Market capitalisation figures are based on shares used in index calculations. [illegible]

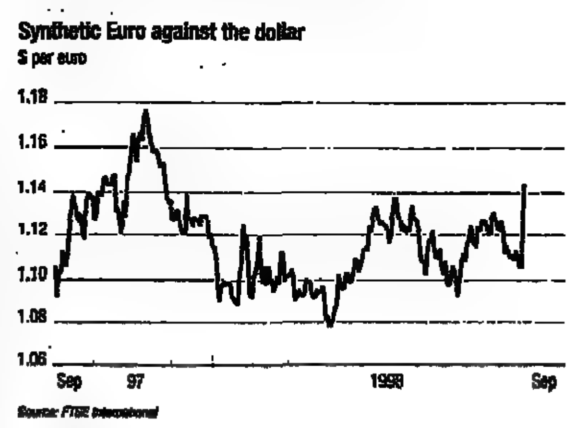
CURRENCIES & MONEY

FT SYNTHETIC EURO RATES

Sep 01	Currency code	Closing mid point	Change on day	Change on day%	Change on week	Change week %
Europe						
Austria	ATS	14.058520	–0.0008	–0.01	–0.0072	–0.05
Belgium	BEF	41.217150	+0.0042	+0.01	–0.0151	–0.04
Czech Republic	CZK	36.190793	–0.6428	–1.75	–0.4698	–1.28
Denmark	DKK	7.606069	–0.0046	[illegible]	–0.0109	–0.14
Finland	FIM	6.081086	–0.0000	+0.00	+0.0022	+0.04
France	FRF	6.700857	+0.0043	+0.06	–0.0004	–0.01
Germany	DEM	1.998092	–0.0001	–0.01	–0.0011	–0.05
Greece	GRD	343.323951	–0.7407	–0.22	[illegible]	+0.63
Hungary	HUF	254.795887	+0.6651	+0.26	+4.2582	+1.70
Ireland	IEP	0.795102	–0.0023	[illegible]	–0.0018	–0.22
Italy	ITL	1973.934244	–0.8824	[illegible]	+2.1817	+0.11
Luxembourg	LUF	41.217150	+0.0042	+0.01	–0.0151	–0.04
Netherlands	NLG	2.256006	+0.0010	+0.05	[illegible]	+0.08
Norway	NOK	8.833389	–0.0720	–0.81	+0.0775	+0.89
Poland	PLN	4.209095	–0.0117	[illegible]	+0.0961	+2.39
Portugal	PTE	204.515190	–0.1560	–0.08	–0.0849	–0.04
Romania	ROL	10222.903963	+104.3551	+1.03	+369.8357	+3.75
Russia	RUB	[illegible]	+2.1468	+19.04	+3.4770	+34.98
Slovakia	SKK	40.206282	[illegible]	+0.38	+0.7685	+1.95
Spain	ESP	169.654517	–0.0436	–0.03	+0.0035	+0.00
Sweden	SEK	9.100326	[illegible]	–0.70	–0.1049	–1.14
Switzerland	CHF	1.644574	+0.0058	+0.35	–0.0265	–1.59
United Kingdom	GBP	0.680765	+0.0041	+0.60	+0.0027	+0.39
ECU	ECU	1.013267	–0.0005	[illegible]	+0.0010	+0.09
Americas						
Brazil	BRL	1.343484	+0.0099	+0.75	+0.0394	+3.02
Canada	CAD	1.768678	–0.0057	–0.32	+0.0445	+2.58
Mexico	MXN	11.439372	+0.1430	+1.27	+0.7563	+7.08
United States	USD	1.142224	+0.0091	+0.81	+0.0311	+2.80
Pacific/Middle East/Africa						
Australia	AUD	1.966795	[illegible]	–0.67	+0.0420	+2.18
Hong Kong	HKD	8.848809	+0.0682	+0.78	+0.2429	+2.82
Japan	JPY	165.833608	–4.1462	–2.59	[illegible]	–3.09
Singapore	SGD	1.981770	–0.0506	–2.51	–0.0081	–0.41
South Africa	ZAR	7.218627	–0.0619	–0.85	+0.2490	+3.57

Source: FTSE International Ltd. This table gives a theoretic, synthetic value for the Euro against various other currencies, calculated by applying GDP weights to Euro "in" currencies. The Euro will not exist until January 1 and the table should not be used as a precise guide to its value. It is designed to show broad currency valuation trends. Currency weightings as follows: DEM 0.3354, FRF 0.2217, ITL 0.1622, NLG 0.0577, BEF 0.0366, ESP 0.0846, IEP 0.0116, PTE 0.0155, ATS 0.0328, FIM 0.0187.

Synthetic Euro against the dollar
$ per euro



Source: FTSE International

EUROZONE CURRENCY CONVERGENCE

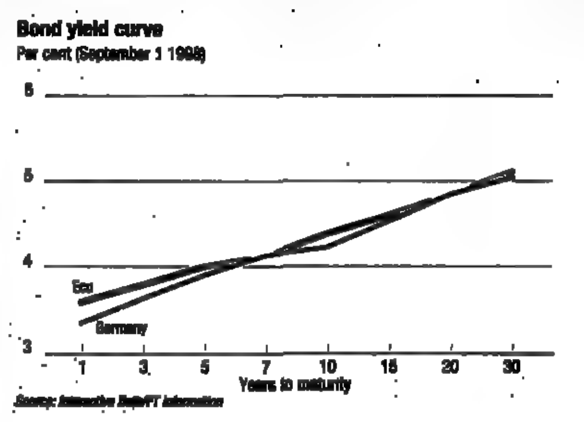
Bilateral conversion rates against the D-Mark

Sep 01	Fixed rate	Market rate	DM ind v mkt%	Week ago %	Forward rate	Forward int rate	Diff int rate v DEM
Austria	7.03552	7.0365	+0.01	+0.01	[illegible]	3.55	+0.03
Belgium	20.6255	20.6283	[illegible]	+0.00	20.6301	3.55	+0.03
France	3.35386	3.3536	–0.01	–0.05	3.3544	3.59	+0.07
Finland	3.04001	3.0434	+0.11	+0.02	3.0439	3.57	+0.05
Ireland	0.402676	0.398	–1.16	–1.01	0.4007	5.58	+2.06
Italy	990.002	987.9094	–0.21	–0.38	992.318	[illegible]	+1.35
Luxembourg	20.6255	20.6283	+0.01	+0.00	20.6301	3.55	+0.03
Netherlands	1.12674	1.1291	+0.21	+0.07	1.1287	3.41	–0.11
Portugal	102.505	102.3552	–0.15	–0.16	102.5572	4.12	+0.60
Spain	85.0722	84.9082	–0.19	–0.25	85.1213	4.28	+0.76
Germany	1		+0.00	+0.00		3.52	+0.00

Source: The WM Company. Fixed rates are bilateral rates agreed by EU May 2-3, forward rates are exchange rates to 31/12/98 interpolated from market quotes, forward interest rates are those implied by these forward exchange rates; Diff int rates v DEM are differences between implied forward interest rates and the DEM forward interest rate for 31/12/98. DEM forward interest rate for 31-12-98 is calculated by interpolation between published BBA market fixings.

BONDS

Bond yield curve
Per cent (September 1 1998)



Source: Interactive Data/FT Information

GOVERNMENT BOND SPREADS vs ECU

Sep 01	2 yrs	5 yrs	7 yrs	10 yrs	20 yrs	30 yrs
"Ins"						
Austria	–0.02	+0.05	+0.23	+0.16	+0.22	+0.18
Belgium	+0.01	[illegible]	+0.11	+0.11	+0.17	+0.08
Finland	–0.08	+0.15	+0.26	+0.15	–0.32	–0.05
France	–0.10	–0.13	–0.04	–0.03	[illegible]	–0.11
Germany	–0.28	–0.10	+0.06	–0.13	+0.08	[illegible]
Ireland	+0.71	+0.07	+0.18	+0.25	+0.33	+0.55
Italy	+0.40	+0.30	+0.36	+0.24	+0.35	+0.24
Luxembourg	+0.01	–0.03	+0.11	+0.11	+0.17	+0.08
Netherlands	–0.12	–0.05	[illegible]	[illegible]	+0.02	–0.12
Portugal	+0.12	+0.24	+0.28	[illegible]	+0.57	+0.36
Spain	+0.00	+0.08	+0.25	+0.32	+0.34	+0.30
"OUTs"						
Denmark	+0.52	+0.39	+0.48	+0.31	+0.21	+0.46
Greece	+8.13	+5.62	+5.02	+2.97	+2.76	+2.43
Sweden	+0.60	+0.62	+0.54	+0.35	+0.34	+0.01
UK	+2.44	+1.58	+1.37	+0.84	+0.45	–0.08

Source: Interactive Data/FT Information. Table takes common convention constant maturity treasury yield curves for each currency and compares to the constant maturity Ecu curve to calculate a spread.

EUROZONE CORPORATE BONDS

Sep 01	Red date	Coupon	S & P Rating	Bid price	Bid yld	Day's chge yld	Mth's chge yld	Spread v Ecu
Sovereign Fungible Issues								
Belgium (Kingdom of)	03/08	5.750	N/A	109.300	[illegible]	+0.00	–0.31	+0.09
France (Rep of)	04/08	5.250	N/A	106.520	4.39	+0.06	–0.38	–0.05
Italy (Rep of)	05/08	5.000	AA	101.760	4.77	+0.07	–0.09	+0.30
Portugal (Rep of)	08/08	5.375	AA–	105.480	4.67	+0.08	–0.22	+0.33
Euro Issues								
Abbey Natl Treas Srv	02/03	4.875	AA	102.680	4.20	+0.01	–0.34	+0.14
Gen Electric Cap Crp	10/04	6.500	AAA	106.380	4.29	+0.04	[illegible]	+0.19
Oest Kontrollbank	04/08	5.250	AAA	104.050	4.71	+0.05	–0.17	+0.27
Cred Local de France	04/08	5.250	AA+	103.270	4.81	+0.05	–0.21	+0.37
Ecu Issues								
Bayer Hypo & Wch Bk	07/01	5.000	AA–	102.305	4.72	+0.01	–0.27	+0.28
Cred Foncier France	03/04	8.375	A	117.507	4.70	+0.04	–0.38	+0.60
Euro Inv Bank	04/04	5.250	AAA	105.760	4.06	+0.04	–0.33	–0.02
ABN Amro Hldg. NV	04/07	6.375	AA–	[illegible]	4.84	+0.04	[illegible]	+0.47

Source: Interactive Data/FT Information. London closing. Fungible bonds issued in tranches by Emu "in" sovereigns and fungible into one big Euro issue 1/1/99; Euro issues are issued in the new currency; Ecu bonds are issued in Ecus but convert to Euros 1/1/99.

EUROZONE CREDIT SPREADS vs ECU

Sep 01	S & P rating	Red date	Coupon	Currency code	Spread	Spread wk ago	Spread mth ago
KFW	AAA	01/09	5.000	DEM	+0.30	+0.22	+0.00
France Telecom	AA+	11/08	6.250	FRF	+0.17	+0.19	+0.12
Halifax	AA	07/07	5.625	DEM	+0.24	+0.15	+0.17
Ing Bank NV	AA–	01/08	5.500	NLG	+0.16	+0.22	+0.16
Bayer Hypo W Bk	AA–	02/02	6.750	ITL	+0.41	+0.39	+0.26
Cred Foncier	A	02/03	7.250	DEM	+0.51	+0.50	+0.31
Thomson-Brandt Int	A–	03/04	6.375	FRF	+0.39	[illegible]	+0.35
Generale des Eaux	BBB+	03/04	6.250	FRF	+0.30	+0.30	+0.32
Bank of China	BBB	07/99	7.125	DEM	+5.24	+3.46	+0.63
Natl Bk of Hungary	[illegible]	06/01	9.000	ATS	+1.19	+1.03	+0.67
Korea Dev Bank	BB+	11/02	5.625	FRF	+9.77	+7.80	+6.75
Argentina	BB	04/08	8.125	XEU	+7.00	+6.19	+3.19

Source: Interactive Data/FT Information. Table shows yield spreads to the Ecu curve for issues of a broadly representative credit in each rating band denominated in Euro "in" currencies.

INTERNATIONAL CAPITAL MARKETS

Prices fall as investors take profits

GOVERNMENT BONDS

By Jeremy Grant in London and John Labate in New York

European prices ended sharply lower yesterday after an early firm start was punctured by signs of a mild – if temporary – recovery on stock markets and as traders reported some profit-taking.

Bond prices, as well as those of bond futures contracts, have been at their highest levels for years as the emerging market turmoil of recent weeks has threatened to turn jittery bulls into confirmed bears.

Analysts suggest that prices may have peaked, pointing out that bond yields cannot fall much further without prompting a cut in key interest rates in the US.

There were signs yesterday that some longer-term investors were switching out of bonds and buying cheap stocks.

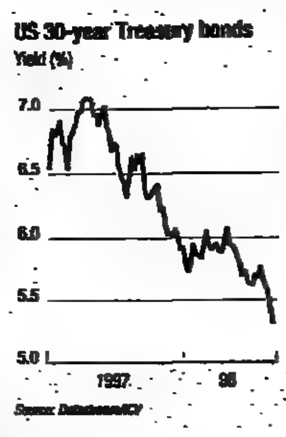
"I think that bonds are looking pricey. People may be looking to take profits on bonds in order to minimise losses in equities," said Julian Jessop, chief European economist at Nikko.

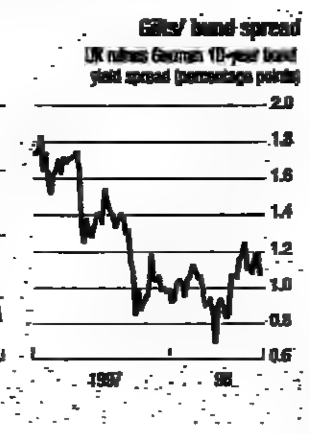
However, most analysts agreed that the fundamentals were still in place for bonds.

"This is just a relief rally in stocks and not a sign that we're on dry land again," said Kit Juckes, head of bond and currency strategy at NatWest.

US TREASURIES were sold heavily in early trading as investors returned cautiously to US equities and on news of a rise in the National Association of Purchasing Management index for August.

By early afternoon the 30-year bond, the benchmark for long-term interest rates, was down 1¼ to 102$\frac{24}{32}$, pushing the yield up to 5.338 per cent.





Among shorter-term issues, the 10-year note was down $\frac{16}{32}$ at 104$\frac{6}{32}$, yielding 5.056 per cent, and the two-year note was $\frac{3}{32}$ lower at 100$\frac{16}{32}$, yielding 4.875 per cent.

"The dollar is selling off and the rising stock market is unwinding the safe-haven bid [in Treasuries]," said Richard Gilhooly, at Paribas Capital Markets New York.

Although international events and the level of stock trading were the main factors, new data were also released on the US economy.

The NAPM index of manufacturing activity rose to 49.4 in August, from 49.1 in July. Meanwhile, the Conference Board's index of leading indicators rose 0.4 per cent in July to 105.4.

UK GILTS closed lower in choppy trading, with prices tracking those in equity markets. The December 10-year gilt future settled 0.67 points lower at 111.90.

The short end of the yield curve outperformed the long end as investors sensed that a reduction in UK interest rates may be creeping into the Bank of England's agenda, in spite of there being no sign of any change in its official stance on rates.

Figures released on the state of manufacturing by the Chartered Institute of Purchasing and Supply showed the sector stuck in the doldrums.

In the cash market, the yield spread between the benchmark gilt and bund was at 117 basis points.

The main GERMAN BUND future settled down 0.80 points at 112.83 in volume of 544,000 contracts traded in Frankfurt.

DERIVATIVES INVESTORS RUSH TO IMPROVE EXPOSURES

Volumes soar on leading exchanges

By Nikki Tait in Chicago and Edward Luce in London

Trading volumes on the world's leading derivatives exchanges have soared in the past few days as investors have rushed to improve their exposure to the highest quality underlying government bond markets.

The London International Financial Futures and Options Exchange said it had recorded its third busiest day last Friday, with an overall turnover of 1.67m contracts (the highest was on October 9 last year).

Two contracts – the euro-lira interest rate future and the short sterling option – posted record daily turnovers on Liffe last Thursday with trading volumes of 219,689 and 167,493 contracts respectively.

Analysts said investors were hoping to compensate for some of their losses in emerging markets by improving their exposure to safe-haven instruments, such as the 10-year German government bond through the futures market.

Turnover in the bund future exceeded 500,000 yesterday – well in excess of its normal daily average but below the high of 800,000 recorded last week. "Futures contracts thrive on volatility," said an official at Liffe.

In Chicago, all three big derivatives exchanges have seen a huge surge in volumes over the past three trading days, with traders staggered as much by the volatility of the markets as the net price movements.

On the Chicago Board Options Exchange, the largest options market worldwide, volumes jumped to 1.3m contracts on Monday and 1.1m last Friday. That compares with average daily trading levels in the year to end-July of around 805,000 contracts a day.

However, volumes at the exchange had already been building, averaging around 920,000 contracts a day in August. By yesterday, some investors were said to be getting out of positions during the past few days, rather than entering new contracts.

Even more marked was the jump in the exchange's "market volatility index", which measures fluctuations in the front month options on a group of leading stocks.

This swept to a record close of 48.33 on Monday, up from 40.95. A year ago, the index was pegged in the high teens, and although it surged to a record intraday high of 57 last October, for much of this year it has been in the 20s.

On Monday night, the degree of price volatility was partly blamed for a brief hiccup in the exchange's quote reporting system. The problem occurred just before the market closed, and rectified within 10 minutes.

The exchange said trading itself was never halted and clearing of trades had not been affected.

On the Chicago Mercantile Exchange, trading in the Standard & Poor's 500 stock index futures leapt to over 200,000 contracts on Friday and to 246,875 on Monday.

This compares with a daily average for the year to date (to end-July) of just over 118,000 contracts.

The spill-over effect on the Merc's "e-mini" contract – a scaled-down version of the main contract designed to appeal to smaller investors and traded, primarily via an electronic system – was equally pronounced. Volumes reached 30,594 contracts on Monday, more than double daily average volumes in the year to end-July.

SWX to open office in London

By William Hall in Zurich

The Swiss Exchange (SWX), Europe's fourth biggest stock exchange, is to open an office in London in a bid to regain its position as Europe's main eurobond trading centre.

Switzerland was the world's biggest centre for eurobond trading in the 1970s, but the imposition of stamp duty on securities transactions led to the business migrating to London.

The SWX is fighting to get the duty removed, but in the interim it is seeking to open up its electronic trading platform to remote members whose transactions will not be liable to the Swiss tax.

The SWX is seeking UK regulatory approval and its London office is expected to open before the end of the year. Its primary mission will be to sell the advantages of remote membership of the Zurich-based SWX to London's eurobond dealers.

The SWX switched to electronic trading in equities in August 1996 and now believes it has one of the cheapest and most transparent electronic trading and settlement platforms.

At the end of July 1998 it began electronic trading in 250 US dollar-denominated eurobonds and plans to start trading in euro-denominated bonds at the start of next year.

Swiss banks are among the biggest traders in eurobonds and it has been estimated that more than half of all eurobonds end up in Swiss portfolios.

SWX is a 50 per cent owner of Eurex, the European derivatives exchange, though it stressed that its office would be separate from Eurex's London office.

NEWS DIGEST

MATIF

Task force appointed to tackle technical hitches

Matif, the French derivatives exchange, has appointed a task force to tackle a series of technical hitches that have repeatedly delayed the start of trading, most recently on Monday. The exchange has been experiencing problems with a new electronic trading system known as NSC-VF. The system was introduced in April and replaces traditional pit-based trading.

It is Matif's main weapon in its battle for a share of derivatives contracts related to the single European currency, the euro, when it is introduced in January next year.

Matif said yesterday it planned to launch Europe's first "multi-issuer" contract in the 30-year segment of the euro yield curve, an "E-bond future", on September 28. Pascale Samaran, the exchange's chief executive, said the problems were related to a computer company that Matif uses to run computer systems, not to the NSC-VF system itself.

Monday's troubles, which caused the exchange to delay opening by two hours, followed tests carried out over the weekend to prepare for the introduction of the euro. Computer operations had not been completely restored in time for the start of the week's trading.

"I understand a trader can get mad when he is trying to execute an order and can't. But I think our record is showing some improvement," Mr Samaran said. **Jeremy Grant**

FINANCIAL FUTURES

Fresh salvo in Cantor battle

The Chicago Board of Trade and four other derivatives and equity exchanges have fired a fresh salvo in the battle over the proposed Cantor Financial Futures Exchange – the new electronic-based bond futures trading system – accusing its backers of making "significant changes" to their application for regulatory approval after public comment periods had ended.

The exchanges – which include the American Stock Exchange, the Chicago Board Options Exchange, the Minneapolis Grain Exchange, and the Kansas City Board of Trade – said they were petitioning the Commodity Futures Trading Commission, the industry regulator that must approve the new exchange, demanding it require submission of a final complete proposal, and then provide another 30-60 days for public comment.

"The ever-shifting nature of the Cantor Exchange proposal requires the commission, at some point, to make a judgment that the application is finally complete and then to provide interested parties with a description and legal analysis of that application," the CBOT said in a letter.

The CFFE proposal, a joint venture between the New York Board of Trade and the Cantor Fitzgerald broker-dealer business, has set alarm-bells ringing at traditional "open-outcry" exchanges, which fear a loss of business to new electronic-based trading systems.
Nikki Tait, Chicago

WORLD BOND PRICES

BENCHMARK GOVERNMENT BONDS

Sep 1	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	01/01	8.750	107.6042	5.49	−0.20	+0.16	+0.35	+0.58
	08/08	8.750	122.2084	5.77	−0.15	+0.16	+0.25	−0.76
Austria	07/00	5.875	103.7032	3.77	+0.04	+0.04	−0.32	−0.41
	01/08	5.000	103.3800	4.54	–	+0.11	−0.25	−1.17
Belgium	01/00	4.000	100.3900	3.88	+0.01	+0.07	−0.30	−0.33
	03/08	5.750	108.3000	4.53	–	+0.05	−0.31	−1.25
Canada	03/00	7.000	101.1700	5.81	−0.08	+0.20	+0.32	+1.37
	06/08	6.000	103.1100	5.58	−0.03	+0.01	+0.11	−0.41
Denmark	11/00	8.000	107.5600	4.31	−0.15	−0.21	−0.09	−0.27
	11/07	7.000	116.4600	4.74	−0.10	−0.12	−0.19	−1.53
Finland	01/99	11.000	102.6190	3.25	−0.03	+0.02	−0.25	−0.85
	04/08	6.000	110.5960	4.61	−0.09	+0.17	−0.21	−1.35
France	01/00	4.000	100.5300	3.58	−0.03	−0.04	−0.33	−0.48
	04/05	7.500	119.4800	4.08	+0.03	+0.04	−0.41	−1.10
	04/08	5.250	106.6200	4.38	+0.06	+0.08	−0.36	−1.20
	04/29	5.500	105.3300	5.15	+0.09	+0.08	−0.16	−1.16
Germany	03/00	4.000	100.6800	3.41	+0.06	−0.14	−0.45	−0.49
	10/05	6.500	113.6000	4.23	+0.09	+0.09	−0.35	−1.06
	01/08	5.250	107.3100	4.26	+0.08	+0.11	−0.37	−1.39
	01/28	5.625	107.1600	5.14	+0.10	+0.13	−0.13	−1.23
Ireland	10/01	6.500	108.4300	4.28	−0.03	+0.12	−0.34	−1.56
	08/06	8.000	110.2000	4.69	+0.04	+0.07	−0.24	−1.69
Italy	04/01	4.500	100.9500	4.10	−0.06	+0.02	−0.28	−1.68
	05/03	4.750	101.9500	4.28	−0.03	+0.04	−0.29	−1.81
	05/08	5.000	102.2000	4.71	+0.02	+0.07	−0.17	−1.80
	11/27	6.500	116.0500	5.29	+0.03	+0.07	−0.04	−1.80
Japan	03/00	6.400	109.1900	0.36	+0.01	−0.03	−0.12	−0.13
	06/03	4.500	117.1200	0.84	+0.02	−0.05	−0.15	−0.67
	09/05	3.000	112.5600	1.14	+0.04	−0.05	−0.16	−0.91
	03/18	2.700	112.6000	1.92	–	−0.11	−0.25	−0.95
Netherlands	05/00	9.000	108.6900	3.58	−0.01	−0.08	−0.41	−0.50
	07/08	5.250	106.6200	4.38	–	+0.01	−0.37	−1.25
New Zealand	02/01	8.000	103.2258	6.50	−0.05	+0.23	−0.10	−0.78
	11/08	8.000	110.0894	6.40	−0.07	+0.26	+0.16	−0.79
Norway	01/99	9.000	100.5000	7.31	−0.32	−0.06	+1.85	+2.77
	01/07	8.750	106.0500	5.81	−0.15	+0.24	+0.49	−0.22
Portugal	03/00	5.375	102.1300	3.91	+0.04	+0.11	−0.30	−1.39
	06/08	5.375	105.4500	4.67	+0.02	+0.03	−0.28	−1.69
Spain	04/00	6.750	104.5000	3.78	+0.03	−0.04	−0.35	−1.27
	01/08	6.000	109.0700	4.70	+0.03	+0.04	−0.29	−1.85
Sweden	05/00	10.250	109.3440	4.28	−0.05	−0.20	−0.03	−0.62
	05/08	6.500	112.9170	4.79	−0.04	−0.16	−0.11	−1.81
Switzerland	03/00	5.000	104.9700	1.63	+0.04	−0.29	−0.48	+0.01
	06/07	4.500	114.7000	2.60	+0.04	−0.05	−0.33	−0.95
UK	11/01	7.000	102.6875	6.05	+0.04	−0.12	−0.46	−0.98
	12/03	6.500	104.1000	5.61	+0.06	−0.10	−0.49	−1.43
	12/07	7.250	113.4600	5.28	+0.09	−0.07	−0.38	−1.68
	12/28	6.000	112.1250	5.20	+0.11	−0.01	−0.21	−1.78
US	06/00	5.500	100.8594	4.97	−0.01	−0.22	−0.52	−1.01
	05/03	5.500	101.9492	5.02	+0.03	−0.16	−0.52	−1.30
	05/08	5.625	104.3069	5.06	+0.02	−0.18	−0.44	−1.28
	11/27	6.125	110.1099	5.43	+0.05	−0.07	−0.29	−1.18
ECU	07/00	4.000	100.3300	3.81	−0.01	−0.01	−0.35	−0.74
	04/06	5.250	106.2400	4.44	+0.06	+0.05	−0.34	−1.51

London closing. *New York mid-day. Source: Interactive Data/FT Information
Yields: Local market standard Annualised yield basis. Yields shown for Italy exclude withholding tax at 12.5 per cent payable by nonresidents.

10 YEAR BENCHMARK SPREADS

Sep 1	Bid Yield	Spread vs Bunds	Spread vs T-Bonds
Australia	5.78	+1.47	+0.72
Austria	4.60	+0.29	−0.46
Belgium	4.55	+0.24	−0.51
Canada	5.58	+1.27	+0.52
Denmark	4.75	+0.44	−0.31
Finland	4.59	+0.28	−0.47
France	4.41	+0.10	−0.65
Germany	4.31	–	−0.75
Ireland	4.69	+0.38	−0.37
Italy	4.78	+0.47	−0.28
Japan	1.36	−2.95	−3.70
Netherlands	4.38	+0.07	−0.68
New Zealand	6.40	+2.09	+1.34
Norway	5.73	+1.42	+0.67
Portugal	4.66	+0.35	−0.40
Spain	4.76	+0.45	−0.30
Sweden	4.80	+0.49	−0.26
Switzerland	2.79	−1.52	−2.27
UK	5.28	+0.97	+0.22
US	5.06	+0.75	–
ECU	4.44	+0.13	−0.62

Source: Interactive Data/FT Information
London closing. * New York closing.
Annualised yield basis.

EMERGING MARKET BONDS

Sep 1	Red date	Coupn	S & P Rating	Bid price	Bid yield	Day's chge yld	Mth's chge yld	Sprd vs US
EUROPE								
Croatia	02/02	7.000	BBB−	91.8772	9.88	−0.39	+2.49	+5.01
Poland	07/04	7.125	BBB−	94.8801	8.26	−0.39	+2.05	+3.33
Russia	06/07	10.000	CCC	23.5000	46.26	−2.36	+29.58	+41.24
LATIN AMERICA								
Argentina	09/27	9.750	BB	69.0000	14.26	−0.87	+4.13	+8.93
Brazil	05/27	10.125	BB−	59.0000	17.25	−0.75	+5.91	+11.92
Mexico	05/26	11.500	BB	89.0000	12.96	−0.62	+3.30	+7.65
ASIA								
China	07/06	7.750	BBB+	88.8272	9.85	−0.39	+2.95	+4.86
Philippines	10/16	8.750	BB+	73.8106	12.41	−0.39	+3.21	+7.24
Thailand	04/07	7.750	BBB−	75.1237	12.55	−0.39	+3.19	+7.53
AFRICA/MIDDLE EAST								
Lebanon	07/00	9.125	BB−	99.5495	9.37	−0.39	+1.84	+4.48
South Africa	10/06	8.375	BB+	85.8803	11.09	−0.39	+2.50	+6.10
Turkey	09/07	10.000	B	77.6546	14.60	−0.38	+4.79	+9.68
BRADY BONDS								
Argentina	03/23	5.750	BB	62.3750	10.18	−0.40	+1.85	+4.91
Brazil	04/14	5.000	BB−	54.3750	15.03	−0.64	+4.49	+9.89
Mexico	12/19	6.250	BB	72.2500	9.25	−0.11	+1.30	+4.04
Venezuela	03/20	6.750	B+	58.6250	12.23	+0.15	+2.81	+7.00

London closing. Prices in US$. Standard & Poor's ratings. Source: Interactive Data/FT Information

BOND FUTURES AND OPTIONS

France

NOTIONAL FRENCH BOND FUTURES (MATIF) FFr500,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Sep	109.10	108.34	−0.26	109.19	108.33	124,044	99,623
Dec	108.55	107.87	−0.26	108.55	107.85	8,516	36,091

LONG TERM FRENCH BOND OPTIONS (MATIF)

Strike Price	Calls Sep	Calls Oct	Calls Dec	Puts Sep	Puts Oct	Puts Dec
102	6.28	5.70	5.70	-	-	0.06
103	5.28	4.70	4.85	-	-	0.11
104	4.28	3.80	3.95	-	-	0.19
105	3.28	2.84	3.11	-	0.03	0.34

Est. vol. total, Calls 3,794 Puts 3,[illegible]. Previous day's open int., Calls [illegible] Puts [illegible].

Germany

NOTIONAL GERMAN BOND FUTURES (LIFFE)* DM250,000 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep	113.76	112.80	[illegible]	[illegible]	113.65	[illegible]	[illegible]
Dec	112.70	112.85	−0.18	112.82	112.84	41	3273

NOTIONAL GERMAN BOND FUTURES (DTB) DM250,000 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep	114.00	112.83	−0.79	114.19	112.47	544,178	617,110
Dec	112.74	111.78	−0.85	113.10	111.81	131,463	275,102

BOND FUTURES OPTIONS (LIFFE) DM250,000 points of 100%

Strike Price	Calls Oct	Calls Nov	Calls Dec	Puts Oct	Puts Nov	Puts Dec

Est. vol. total, Calls 0 Puts 0. Previous day's open int., Calls 7496 Puts 6540

NOTIONAL GERMAN BOND (BOBL) FUTURES (DTB) DM250,000 100ths of 100%

[illegible]

Italy

NOTIONAL ITALIAN GOVT. BOND (BTP) FUTURES (LIFFE)* Lira 200m 100ths of 100%

[illegible]

ITALIAN GOVT. BOND (BTP) FUTURES OPTIONS (LIFFE) Lira200m 100ths of 100%

[illegible]

Spain

NOTIONAL SPANISH BOND FUTURES (MEFF)

[illegible]

UK

NOTIONAL 5 YEAR GILT FUTURES (LIFFE) £100,000 100ths of 100%

[illegible]

NOTIONAL UK GILT FUTURES (LIFFE) £100,000 100ths of 100%

[illegible]

LONG GILT FUTURES OPTIONS (LIFFE) £100,000 100ths of 100%

[illegible]

US

US TREASURY BOND FUTURES (CBT) $100,000 32nds of 100%

[illegible]

Japan

NOTIONAL LONG TERM JAPANESE GOVT. BOND FUTURES (LIFFE) Y100m 100ths of 100%

[illegible]

Ecu

ECU BOND FUTURES (MATIF) ECU100,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Sep	–	105.90	−0.98	–	–	0	18

US CORPORATE BONDS

[illegible]

US INTEREST RATES

[illegible]

INTERNATIONAL BONDS

[illegible]

UK BONDS

FTSE Actuaries Govt. Securities — UK Indices

[illegible]

FT Fixed Interest Indices

[illegible]

UK GILTS PRICES

[illegible]

Other Fixed Interest

[illegible]

هكذا من الاصل

Dollar rebounds on unstable markets

MARKETS REPORT

By Richard Adams and Robert Chote

The US dollar tracked the swings and roundabouts of Wall Street yesterday, falling and then rising as the bears and bulls battled it out.

The dollar ended the trading day in Europe against the D-Mark at DM1.749, some 1.5 pfennig weaker than its previous closing rate in London. Against the Japanese yen it was Y136.4, just over Y3.5 lower.

But the European closing prices failed to tell the full story of the dollar's see-saw ride. The dollar earlier slumped to a nine-month low against the D-Mark, and its weakest level against the yen for two and a half months. The Australian and Canadian dollars enjoyed a rare respite from their weakness, strengthening against the US dollar as the idea abounded that the Federal Reserve would be prepared to cut interest rates.

The movement in Fed funds futures suggest that many in the market have begun to price in a cut. The greenback was not helped by the less robust than expected NAPM survey result.

However, after Europe's close, the dollar rose again as the Dow Jones index strengthened. Against the yen the dollar reached above Y137 before hitting resistance, on talk of Japanese repatriation.

■ Sterling dropped 0.7 points against a trade-weighted basket of currencies yesterday, to 105.3 per cent of its 1990 value. It closed stronger against the enfeebled dollar but the US currency pulled it lower against the D-Mark.

With eyes focused nervously on equity markets, confirmation of the plight of British manufacturing did little to influence interest expectations or the pound. The Chartered Institute of Purchasing and Supply reported a deepening slide in factory output, although separate figures from the Bank of England showed the consumer resilient for now.

Analysts at Goldman Sachs argued that sterling's strength during the recent turmoil was understandable in the light of short positions in the market. They expect economic weakness to pull sterling lower directly, or possibly via an early rate cut. They look for an early test of DM2.88, which if successful would raise the prospect of a drop to DM2.78 or lower. In the meantime technical analysts see support for sterling at DM2.9285 and DM2.9150.

Michael Saunders, at Salomon Smith Barney, noted that futures markets priced in almost half a point off base rates by the end of the year. But he argued that equity markets were not yet weak enough to justify easier policy, making it likely that rates would not fall until next year.

If this view takes hold it might give sterling support for a while.

■ Outside of Wall Street, the most significant development of the day was the decision by Malaysia to impose swingeing capital controls.

As a result, Malaysia's currency – the ringgit – is no longer legal tender outside of the country. All trading in the ringgit will take place on-shore. Holders of the ringgit offshore must repatriate them by the end of this month (about M$100m, or $25m). All settlement of exports and imports must be made in foreign currency, and non-residents who sell shares cannot repatriate earnings for a year.

The ringgit ended the day stronger, with analysts concerned that a fixed exchange rate could also be introduced. Other east Asian countries may be tempted to follow Malaysia's lead.

■ Is China about to devalue? Not according to Joe Zhang, head of China research at HSBC in Hong Kong.

"The renminbi is massively undervalued," Mr Zhang told a briefing yesterday. "I expect it to appreciate by 10 per cent to 15 per cent in the next two years."

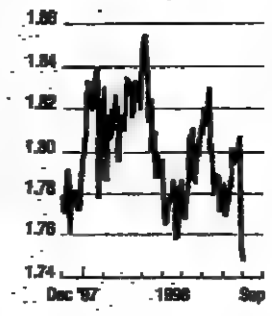
The appreciation would begin in the fourth quarter of 1998, when exporters began to repatriate a greater portion of their foreign exchange earnings and convert them to yuan.

"Deflation means the renminbi is strengthening domestically in terms of its purchasing power," Mr Zhang said.

"Deflation and the renminbi appreciation are mutually reinforcing."

Dollar

Against the D-Mark (DM per $)



Source: Datastream/ICV

■ **POUND IN NEW YORK**

Sep 1	—Latest—	— Prev. close —
£ spot	1.6750	1.6815
1 mth	1.6721	1.6788
3 mth	1.6671	1.6736
1 yr	1.6475	1.6532

■ **OTHER CURRENCIES**

Sep 1	£	$
Czech Rp	53.1214 - 53.2080	31.6970 - 31.7020
Hungary	374.116 - 374.485	223.020 - 223.120
Iran	5295.20 - 5302.50	[illegible]
Kuwait	0.5125 - 0.5129	0.3055 - 0.3056
Peru	5.1130 - 5.1225	3.0480 - 3.0520
Poland	6.1564 - 6.2101	3.6700 - 3.7000
Russia	[illegible]	[illegible]
U.A.E.	6.1611 - 6.1646	3.6726 - 3.6730

WORLD INTEREST RATES

MONEY RATES

Sep 1	Over night	One month	Three mths	Six mths	One year	Lomb. inter.	Dis. rate	Repo rate
Belgium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.00	2.75	–
France	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.60	–	3.30
Germany	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.50	2.50	3.30
Ireland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	–	6.75
Italy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.50	5.00	4.99
Netherlands	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	2.75	3.30
Switzerland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	1.00	–
US	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	5.00	–
Japan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	0.50	–
■ $ LIBOR BBA London								
Interbank Fixing	–	[illegible]	[illegible]	[illegible]	[illegible]	–	–	–
US Dollar CDs	–	5.43	5.38	5.32	5.26	–	–	–
ECU Linked Ds	–	[illegible]	[illegible]	[illegible]	[illegible]	–	–	–
SDR Linked Ds	–	[illegible]	[illegible]	[illegible]	[illegible]	–	–	–

London interbank fixing rate (LIBOR) is the BBA London rate, fixed at 11am. Mid rates are shown for the domestic Money Rates, US$ CDs, ECU & SDR Linked Deposits (Ds).

EURO CURRENCY INTEREST RATES

Sep 1	Short term	7 days notice	One month	Three months	Six months	One year
Belgian Franc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Danish Krone	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
German Mark	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dutch Guilder	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
French Franc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Portuguese Esc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spanish Peseta	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sterling	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Swiss Franc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Canadian Dollar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
US Dollar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Italian Lira	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Japanese Yen	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Asian $Sing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Short term rates are call for the US Dollar and Yen, others: two days' notice.

■ THREE MONTH PIBOR FUTURES (MATIF) Paris Interbank offered rate

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep	96.485	96.475	+0.005	96.485	96.460	6,753	46,670
Dec	96.425	96.430	+0.015	96.440	96.415	7,898	34,947

■ THREE MONTH EUROMARK FUTURES (LIFFE)* DM1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep	96.510	96.510	+0.005	96.545	96.505	78237	509853
Dec	96.400	96.400	+0.035	96.420	96.385	147391	529544
Mar	96.430	96.460	+0.080	96.470	96.415	123182	547382
Jun	96.350	96.425	+0.080	96.455	96.390	82294	361881

■ ONE MONTH EUROMARK FUTURES (LIFFE)* DM3m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep		96.550	+0.005			0	0
Oct		96.540	−0.035			0	0

■ THREE MONTH EUROLIRA FUTURES (LIFFE)* L1000m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep	95.160	95.030	−0.120	95.170	94.940	82714	178457
Dec	96.110	96.090	−0.030	96.130	96.000	67245	181785
Mar	96.370	96.410	+0.080	96.440	96.360	52060	265336
Jun	96.340	96.380	+0.080	96.410	96.340	7765	59764

■ THREE MONTH EURO SWISS FRANC FUTURES (LIFFE) SFr1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep	98.380	98.400	+0.070	98.460	98.350	15223	71282
Dec	98.300	98.330	+0.100	98.410	98.280	27837	72525
Mar	98.250	98.280	+0.100	98.350	98.230	8735	38100
Jun	98.140	98.180	+0.100	98.240	98.120	3050	22691

■ THREE MONTH EUROYEN FUTURES (LIFFE) Y100m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep		99.27	+0.04			0	0
Dec		99.29	+0.07			0	0
Mar		99.32	+0.06			0	0

* LIFFE futures also traded on APT

■ THREE MONTH ECU FUTURES (LIFFE) Ecu1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Oct		95.865	+0			0	0
Dec	96.280	96.285	+0.030	96.300	96.250	136	8078
Mar	96.425	96.450	+0.080	96.445	96.410	882	8383
Jun	96.390	96.420	+0.085	96.400	96.390	42	1964

■ EUROLIRA OPTIONS (LIFFE) L1000m points of 100%

Strike Price	CALLS Sep	CALLS Dec	CALLS Mar	PUTS Sep	PUTS Dec	PUTS Mar
95125	0.070			0.105		
95250	0.030	0.070	0.180	0.250	0.030	0.020
95375	0.015			0.360		

Est. vol. total, Calls 20832 Puts 5701. Previous day's open int., Calls 162878 Puts 143483

POUND SPOT FORWARD AGAINST THE POUND

Sep 1		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	Day's mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	Bank of Eng. Index
Europe													
Austria	(Sch)	20.6537	−0.1249	447 - 626	20.8212	20.5444	20.59	4.3	20.4523	3.9	19.9895	3.3	103.4
Belgium	(BFr)	60.5489	−0.3581	107 - 870	61.2080	60.2400	60.3289	4.4	59.9491	4.0	58.5015	3.4	102.9
Denmark	(DKr)	11.1735	−0.0736	663 - 807	11.2514	11.1385	11.1475	3.4	11.0876	[illegible]	10.8892	2.5	108.1
Finland	(FM)	8.9332	−0.0535	258 - 386	8.9950	8.8890	8.9019	4.2	8.8464	3.9	8.6308	3.4	81.8
France	(FFr)	9.8437	[illegible]	394 - 480	9.8855	9.7869	9.8086	4.3	9.7474	3.9	[illegible]	3.4	106.4
Germany	(DM)	2.9352	−0.0178	330 - 364	2.9493	2.9151	2.9245	4.4	2.909	4.0	[illegible]	3.4	104.8
Greece	(Dr)	504.350	−4.112	055 - 645	511.137	499.219	507.835	−4.3	513.151	−7.0	528.442	−5.8	60.4
Ireland	(I£)	1.1661	−0.0103	670 - 692	1.1757	1.1632	1.1656	1.8	1.1636	1.4	1.1373	2.6	94.8
Italy	(L)	2899.75	−18.65	472 - 078	2915.08	2888.28	2893.7	2.5	2882.42	2.4	2817.22	2.8	76.1
Luxembourg	(LFr)	60.5489	−0.3581	107 - 870	61.2080	60.2400	60.3289	4.4	59.9491	4.0	58.5015	3.4	102.9
Netherlands	(Fl)	3.3141	−0.0183	124 - 158	3.3280	3.2985	3.3018	4.5	3.2802	4.1	3.1993	3.5	102.2
Norway	(NKr)	12.9765	−0.1639	646 - 886	13.3288	12.8603	[illegible]	−0.4	12.9858	−0.3	12.9442	0.2	92.6
Portugal	(Es)	300.437	−2.058	273 - 601	302.356	299.091	299.574	3.4	298.004	3.2	291.068	3.1	92.1
Spain	(Pta)	249.228	−1.558	075 - 377	250.380	247.720	248.546	3.3	247.322	3.1	241.522	3.1	77.2
Sweden	(SKr)	13.2885	−0.1733	808 - 783	13.6010	13.2590	13.33	3.5	13.2617	3.2	13.0136	2.7	88.3
Switzerland	(SFr)	2.4159	−0.008	144 - 174	2.4227	2.3999	2.4081	6.4	2.3807	5.8	2.2817	5.1	107.6
UK	(£)	-	-	-	-	-	-	-	-	-	-	-	105.3
Ecu	–	1.4866	−0.0096	678 - 693	1.4976	1.4811	1.4842	3.5	1.4785	3.3	1.4415	3.2	-
SDR†	–	1.241900	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	1.6777	+0.0011	772 - 781	1.6863	1.6725	-	-	-	-	-	-	-
Brazil	(R$)	1.9736	+0.0028	729 - 743	1.9881	1.9685	-	-	-	-	-	-	-
Canada	(C$)	2.5953	−0.0239	938 - 968	2.6351	2.5844	2.5913	1.8	2.5848	1.6	2.5649	1.2	78.4
Mexico	(New Peso)	16.8047	+0.1107	750 - 344	17.0924	16.7273	17.28	−34.7	18.3204	−36.9	21.8495	−30.0	-
USA	($)	1.6780	+0.0036	775 - 784	1.6866	1.6728	1.6751	2.1	1.6700	1.9	1.6503	1.7	111.9
Pacific/Middle East/Africa													
Australia	(A$)	2.8883	−0.0359	873 - 913	2.9740	2.8842	2.8827	2.7	2.8720	2.4	2.8411	1.7	77.4
Hong Kong	(HK$)	12.9991	+0.0231	938 - 042	13.0587	12.9585	13.0893	−3.3	13.1045	−3.2	13.5436	−4.2	-
India	(Rs)	71.3570	+0.1572	315 - 824	71.5720	71.1500	-	-	-	-	-	-	-
Indonesia	(Rupiah)	18541.42	−213.1	475 - 808	18613.00	18024.50	18514.40	−93.0	21417.80	−92.1	28714.82	−64.0	-
Israel	(Shk)	6.4394	+0.0641	213 - 576	6.4945	6.3484	-	-	-	-	-	-	-
Japan	(Y)	228.923	−7.5	811 - 095	234.630	228.880	227.478	7.6	224.873	7.1	214.013	6.5	113.0
Malaysia	(M$)	6.5277	−0.4806	178 - 374	7.0769	6.5195	[illegible]	−20.6	6.7975	−16.3	7.3607	−12.8	-
New Zealand	(NZ$)	3.3112	−0.0672	080 - 144	3.4031	3.2885	3.3061	1.8	3.2983	1.4	3.2888	0.7	92.0
Philippines	(Peso)	72.4876	−0.8558	325 - 426	72.6665	72.1008	73.0032	−8.5	73.9749	−8.2	79.0225	−8.8	-
Saudi Arabia	(SR)	6.2961	+0.0142	901 - 000	6.3244	6.2789	6.2936	0.5	6.2876	0.5	6.2401	0.7	-
Singapore	(S$)	2.8619	−0.0921	785 - 852	2.9778	2.8576	2.8777	1.7	2.8703	1.6	2.8469	1.4	-
South Africa	(R)	10.6042	−0.1549	934 - 150	10.8817	10.3818	10.7491	−15.9	11.0040	−16.1	12.1207	−14.3	-
South Korea	(Won)	2273.62	+12.21	134 - 591	2282.30	2230.60	-	-	-	-	-	-	-
Taiwan	(T$)	58.4120	+0.0473	921 - 318	58.8741	58.2369	58.5625	−3.1	58.8704	−3.0	60.2532	−3.2	-
Thailand	(Bt)	67.5376	−2.024	678 - 074	70.2680	67.1630	68.0011	−8.8	68.1394	−8.5	74.2815	−10.0	-

† Rates for Aug 31. Bid/offer spreads in the Pound Spot table show only the last three decimal places. Sterling index calculated by the Bank of England. Base average 1990 = 100. Index rebased 1/2/95. The exchange rates printed in this table are also available on the internet at http://www.FT.com.

DOLLAR SPOT FORWARD AGAINST THE DOLLAR

Sep 1		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	Day's mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	J.P. Morgan index
Europe													
Austria	(Sch)	12.3060	[illegible]	080 - 109	12.3880	12.2220	12.2861	2.2	12.2469	2.0	12.1009	1.7	103.3
Belgium	(BFr)	36.0850	−0.287	800 - 900	36.3100	35.8550	36.018	2.3	35.8975	2.1	35.45	1.8	103.0
Denmark	(DKr)	6.6580	−0.0577	565 - 615	6.7045	6.6420	6.6517	1.3	6.6392	1.2	6.5985	0.9	105.5
Finland	(FM)	5.3238	−0.0429	213 - 264	5.3590	5.2894	5.3144	2.1	5.2973	2.0	5.2259	1.8	81.3
France	(FFr)	5.8665	−0.0405	655 - 675	5.9030	5.8280	5.8597	2.2	5.8387	2.0	5.763	1.8	106.1
Germany	(DM)	1.7490	−0.0142	485 - 495	1.7615	1.7390	1.745	2.3	1.7401	2.1	1.718	1.8	104.5
Greece	(Dr)	300.575	−3.075	480 - 670	305.310	298.080	303.175	−10.4	307.275	−8.9	320.825	−6.7	60.1
Ireland	(I£)	1.4365	+0.0155	355 - 375	1.4400	1.4277	1.4358	0.6	1.4348	0.5	1.451	−1.0	-
Italy	(L)	1728.15	−14.7	800 - 830	1740.50	1715.50	1727.33	0.4	1726	0.5	1707.15	1.2	75.9
Luxembourg	(LFr)	36.0850	−0.287	800 - 900	36.3100	35.8550	36.018	2.3	35.8975	2.1	35.45	1.8	103.0
Netherlands	(Fl)	1.9751	−0.015	745 - 756	1.9862	1.9607	1.971	2.5	1.9642	2.2	1.9387	1.8	102.3
Norway	(NKr)	7.7330	−0.1258	295 - 365	7.9540	7.6811	7.7495	−2.5	7.7765	−2.2	7.8438	−1.4	91.9
Portugal	(Es)	179.050	−1.58	000 - 100	180.500	177.910	178.845	1.4	178.445	1.4	176.39	1.5	92.9
Spain	(Pta)	148.530	−1.295	490 - 580	149.500	147.580	148.38	1.2	148.095	1.2	145.355	1.6	77.0
Sweden	(SKr)	7.9672	−0.1211	647 - 697	8.1282	7.9055	7.959	1.4	7.9411	1.3	7.8857	1.0	83.2
Switzerland	(SFr)	1.4390	−0.0085	380 - 400	1.4470	1.4270	1.4346	4.3	1.4255	4.0	1.3867	3.5	108.0
UK	(£)	1.6780	+0.0035	775 - 784	1.6866	1.6728	1.6751	2.1	1.6701	1.9	1.6503	1.7	105.6
Ecu	–	1.1275	+0.0095	270 - 275	1.1346	1.1265	1.1286	−1.4	1.1311	−1.4	1.1446	−1.8	-
SDR†	–	0.74903	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	0.9998	-	995 - 998	0.9999	0.9997	-	-	-	-	-	-	-
Brazil	(R$)	1.1782	−0.0007	781 - 783	1.1770	1.1755	-	-	-	-	-	-	-
Canada	(C$)	1.5467	−0.0175	462 - 472	1.5677	1.5300	1.547	−0.2	1.5476	−0.2	1.5542	−0.5	75.7
Mexico	(New Peso)	10.0150	+0.0465	900 - 300	10.0400	10.0000	10.322	−36.8	10.98	−38.9	13.24	−32.2	-
USA	($)	-	-	-	-	-	-	-	-	-	-	-	118.0
Pacific/Middle East/Africa													
Australia	(A$)	1.7219	−0.0256	212 - 227	1.7663	1.7078	1.7211	0.6	1.7185	0.8	1.7078	0.8	76.5
Hong Kong	(HK$)	7.7470	−0.0022	465 - 480	7.7490	7.7425	7.782	−5.4	7.847	−5.2	8.207	−5.9	-
India	(Rs)	42.5283	+0.0083	225 - 300	42.5400	42.4550	42.9583	−12.1	43.7783	−11.8	47.0213	−10.6	-
Indonesia	(Rupiah)	11050.00	−150	000 - 000	11300.00	10750.00	11650	−65.2	12835	−64.3	17480	−57.6	-
Israel	(Shk)	3.8377	+0.0424	282 - 471	3.8746	3.7851	-	-	-	-	-	-	-
Japan	(Y)	136.430	−4.76	400 - 460	139.000	135.000	135.8	5.5	134.665	5.2	129.785	4.9	111.3
Malaysia	(M$)	3.8903	−0.295	905 - 950	4.2000	3.8750	3.9703	−24.7	4.0703	−18.5	4.4603	−14.7	-
New Zealand	(NZ$)	1.9734	−0.0442	720 - 747	2.0085	1.9646	1.9765	−1.9	1.9819	−1.7	2.0007	−1.4	-
Philippines	(Peso)	43.2000	−0.6	000 - 000	43.4500	42.5000	43.5825	−10.6	44.296	−10.1	[illegible]	−11.7	-
Saudi Arabia	(SR)	3.7523	+0.0006	515 - 530	3.7540	3.7508	3.7573	−1.6	3.7661	−1.4	3.7868	−0.9	-
Singapore	(S$)	1.7175	−0.0595	150 - 200	1.7765	1.7060	1.718	−0.3	1.7188	−0.3	1.7218	−0.2	-
South Africa	(R)	6.3190	−0.1955	150 - 245	6.5500	6.2100	6.4149	−18.0	[illegible]	−17.1	7.3448	−16.2	-
South Korea	(Won)	1355.00	+4.5	400 - 600	1360.00	1335.00	-	-	-	-	-	-	-
Taiwan	(T$)	34.8115	−0.0425	090 - 140	34.8300	34.7900	34.9615	−5.2	35.3115	−5.7	36.3115	−4.0	-
Thailand	(Bt)	40.2500	−1.85	000 - 000	41.7700	40.0000	40.65	−11.9	41.4	−11.4	45	−11.8	-

† SDR rate per $ for Aug 31. Bid/offer spreads in the Dollar Spot table show only the last three decimal places. UK, Ireland & ECU are quoted in US currency. J.P. Morgan nominal indices Aug 31: Base average 1990=100. Bid, offer, mid spot rates and forward rates in both this and the Dollar table are derived from THE WM/REUTERS CLOSING SPOT and FORWARD RATE services. Some values are rounded by the F.T. The exchange rates printed in this table are also available on the internet at http://www.FT.com

CROSS RATES AND DERIVATIVES

EXCHANGE CROSS RATES

Sep 1		BFr	DKr	FFr	DM	I£	L	Fl	NKr	Es	Pta	SKr	SFr	£	C$	$	Y	Ecu
Belgium	(BFr)	100	18.45	16.26	4.846	1.929	4789	5.473	21.45	496.2	411.6	22.08	3.990	1.652	4.286	2.771	378.1	2.458
Denmark	(DKr)	54.19	10	8.810	2.627	1.045	2595	2.966	11.61	268.9	223.1	11.96	2.162	0.895	2.323	1.502	204.9	1.332
France	(FFr)	61.51	11.35	10	2.982	1.187	2946	3.367	13.18	305.2	253.2	13.58	2.454	1.016	2.637	1.705	232.6	1.512
Germany	(DM)	20.63	3.807	3.354	1	0.398	987.9	1.129	4.421	102.4	84.91	4.555	0.823	0.341	0.884	0.572	77.99	0.507
Ireland	(I£)	51.84	9.566	8.427	2.513	1	2482	2.837	11.11	257.2	213.4	11.44	2.068	0.856	2.222	1.437	196.0	1.274
Italy	(L)	2.088	0.386	0.339	0.101	0.040	100	0.114	0.448	10.36	8.595	0.461	0.083	0.034	0.090	0.058	7.895	0.051
Netherlands	(Fl)	18.27	3.371	2.970	0.886	0.352	875.0	1	3.916	90.65	75.20	4.034	0.729	0.302	0.783	0.506	69.07	0.449
Norway	(NKr)	46.66	8.611	7.586	2.262	0.900	2235	2.554	10	231.5	192.1	10.30	1.862	0.771	2.000	1.293	176.4	1.147
Portugal	(Es)	20.15	3.719	3.276	0.977	0.389	965.2	1.103	4.319	100	82.95	4.450	0.804	0.333	0.864	0.559	76.20	0.495
Spain	(Pta)	24.29	4.483	3.950	1.178	0.469	1164	1.330	5.207	120.5	100	5.364	0.969	0.401	1.041	0.673	91.85	0.597
Sweden	(SKr)	45.29	8.358	7.363	2.196	0.874	2169	2.479	9.707	224.7	186.4	10	1.807	0.748	1.941	1.255	171.2	1.113
Switzerland	(SFr)	25.06	4.625	4.075	1.215	0.484	1200	1.372	5.371	124.4	103.2	5.534	1	0.414	1.074	0.695	94.76	0.616
UK	(£)	60.55	11.17	9.844	2.935	1.168	2900	3.314	12.98	300.4	249.2	13.37	2.416	1	2.595	1.678	228.9	1.489
Canada	(C$)	23.33	4.305	3.793	1.131	0.450	1117	1.277	5.000	115.8	96.03	5.151	0.931	0.385	1	0.647	88.21	0.574
USA	($)	36.09	6.659	5.867	1.749	0.696	1728	1.975	7.734	179.1	148.5	7.967	1.440	0.596	1.547	1	136.4	0.887
Japan	(Y)	26.45	4.881	4.300	1.282	0.510	1267	1.448	5.669	131.2	108.9	5.840	1.055	0.437	1.134	0.733	100	0.650
Ecu	–	40.68	7.507	6.613	1.972	0.785	1948	2.227	8.718	201.8	167.4	8.981	1.623	0.672	1.744	1.127	153.8	1

Danish Kroner, French Franc, Norwegian Kroner, and Swedish Kronor per 10; Belgian Franc, Yen, Escudo, Lira and Peseta per 100.

■ D-MARK FUTURES (IMM) DM 125,000 per DM

	Open	Latest	Change	High	Low	Est. vol	Open int.
Sep	0.5693	0.5731	+0.0036	0.5748	0.5681	41,891	110,834
Dec	0.5701	0.5761	+0.0036	0.5767	0.5701	5,161	7,724
Mar	–	0.5780	+0.0030	0.5780	–	4	75

■ SWISS FRANC FUTURES (IMM) SFr 125,000 per SFr

	Open	Latest	Change	High	Low	Est. vol	Open int.
Sep	0.6851	0.6969	+0.0048	0.7020	0.6820	31,798	60,032
Dec	0.6744	0.7083	+0.0051	0.7080	0.7000	3,654	10,448
Mar	0.7052	0.7125	+0.0042	0.7125	–	2	25

■ JAPANESE YEN FUTURES (IMM) Yen 12.5m per Yen 100

	Open	Latest	Change	High	Low	Est. vol	Open int.
Sep	0.7118	0.7338	+0.0231	0.7364	0.7100	25,369	129,186
Dec	0.7230	0.7435	+0.0236	0.7460	0.7230	1,668	8,812
Mar	0.7400	0.7522	+0.0229	0.7519	0.7400	2	1,920

■ STERLING FUTURES (IMM) £62,500 per £

	Open	Latest	Change	High	Low	Est. vol	Open int.
Sep	1.6766	1.6790	−0.0026	1.6822	1.6716	19,971	59,653
Dec	1.6710	1.6686	−0.0034	1.6734	1.6660	4,394	10,963
Mar	–	1.6660	−0.0030	–	1.6600	7	11

UK INTEREST RATES

LONDON MONEY RATES

Sep 1	Over-night	7 days notice	One month	Three months	Six months	One year
Interbank Sterling	8¼ - 7	7⅞ - 7¾	7⅞ - 7¾	7⅞ - 7¾	7¾ - 7⅝	7⅞ - 7¾
Sterling CDs	-	-	[illegible]	[illegible]	[illegible]	[illegible]
Treasury Bills	-	-	[illegible]	[illegible]	-	-
Bank Bills	-	-	[illegible]	[illegible]	[illegible]	-
Local authority deps.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Discount Market deps	[illegible]	[illegible]	-	[illegible]		

UK clearing bank base lending rate 7½ per cent from Jun 4, 1998

	Up to 1 month	1-3 month	3-6 months	6-9 months	9-12 months
Certs of Tax dep. (£100,000)	4	6.5	[illegible]	6.25	6.25

Certs of Tax dep. under £100,000 is 4pc. Deposits withdrawn for cash 2pc. Ave. tender rate of discount on Aug 21, 7.2358pc. ECGD fixed rate Stg. Export Finance. Make up day Aug 28, 1998. Agreed rate for period Sep 23, 1998 to Oct 25, 1998, Scheme III 8.85pc. Reference rate for period Aug 1, 1998 to Aug 28, 1998, Schemes IV & V 7.740pc. Finance House Base Rate 8pc from Sep 1, 1998.

■ THREE MONTH STERLING FUTURES (LIFFE) £500,000 points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep	92.420	92.490	+0.110	92.540	92.420	62439	153913
Dec	92.750	92.810	+0.135	92.930	92.740	95262	170914
Mar	93.000	93.100	+0.150	93.220	93.000	83356	134723
Jun	93.210	93.300	+0.140	93.440	93.210	50827	155876
Sep	93.380	93.420	[illegible]	93.560	93.360	12941	112738

Also traded on APT. All Open interest figs. are for previous day.

■ SHORT STERLING OPTIONS (LIFFE) £500,000 points of 100%

Strike Price	CALLS Sep	CALLS Dec	CALLS Mar	PUTS Sep	PUTS Dec	PUTS Mar
92250	0.245	0.655	0.910	0.015	0.035	0.080
92375	0.155			0.050		
92500	0.080	0.390	0.700	0.100	0.080	0.150
92625	0.050			0.185		
92750	0.030	0.230	0.510	0.300	0.170	0.180
92875	0.020			0.415		

Est. vol. total, Calls 118044 Puts 48848. Previous day's open int., Calls [illegible] Puts [illegible]

EMS EUROPEAN CURRENCY UNIT RATES

Sep 1	Ecu cen. rates	Rate against Ecu	Change on day	% +/- from cen. rate	% spread v weakest	Div. ind.
Greece	357.000	339.625	+0.308	−4.87	4.91	33
Ireland	0.796244	0.784887	−0.000891	−1.44	1.28	10
Denmark	7.52257	7.50045	−0.00735	−0.56	0.35	4
Spain	168.220	167.307	−0.117	−0.54	0.35	4
Italy	1957.61	1947.15	[illegible]	−0.53	0.34	4
France	6.63186	6.60602	−0.00625	−0.40	0.21	3
Portugal	202.692	201.322	−0.154	−0.38	0.18	3
Germany	1.97738	1.97001	−0.00162	−0.37	0.18	4
Belgium	40.7844	40.6360	−0.0308	−0.36	0.17	3
Austria	13.9119	13.8616	−0.0117	−0.36	0.16	3
Finland	6.01125	5.99572	−0.00395	−0.26	0.06	2
Netherlands	2.22799	2.22350	−0.00164	−0.20	0.00	1
NON ERM MEMBERS						
UK	0.653644	0.672022	+0.003538	2.81	−2.93	–

Ecu central rates set by the European Commission. Currencies are in descending relative strength. Percentage changes are for Ecu; a positive change denotes a weak currency. Divergence shows the ratio between two spreads: the percentage difference between the actual market and Ecu central rates for a currency, and the maximum permitted percentage deviation of the currency's market rate from its Ecu central rate. 17/9/92: Sterling suspended from ERM. 16/3/98: Drachma joined ERM & Punt revalued by 3%. Other central rates adjusted. Adjustment calculated by the Financial Times.

■ PHILADELPHIA SE £/$ OPTIONS £31,250 (cents per pound)

Strike Price	CALLS Sep	CALLS Oct	CALLS Nov	PUTS Sep	PUTS Oct	PUTS Nov
1.630	-	5.44	5.60	0.03	0.48	0.85
1.640	4.24	4.61	4.82	0.09	0.68	1.11
1.650	3.38	3.84	4.10	0.19	0.92	1.42

Previous day's vol., Calls 10 Puts 81. Prev. day's open int., Calls 1,448 Puts 10,015

■ PHILADELPHIA SE D-MARK OPTIONS DM62,500 (cents per DM)

Strike Price	CALLS Sep	CALLS Oct	CALLS Nov	PUTS Sep	PUTS Oct	PUTS Nov
0.550	1.92	-	-	0.03	0.14	[illegible]
0.555	1.47	-	-	0.07	0.24	0.35
0.560	1.07	1.41	-	0.12	0.37	0.49

Previous day's vol., Calls 111 Puts 1,055. Prev. day's open int., Calls 3,504 Puts 11,059

■ THREE MONTH EURODOLLAR (IMM) $1m points of 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Sep	94.44	94.45	+0.01	94.52	94.42	54,448	441,583
Dec	94.25	94.64	+0.02	94.73	94.61	73,749	[illegible]
Mar	94.79	94.82	+0.04	94.90	94.69	116,432	435,785

■ US TREASURY BILL FUTURES (IMM) $1m per 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Sep	–	95.17	+0.01	95.17	–	97	3,467
Dec	95.53	95.52	+0.04	95.53	95.52	105	761
Mar	–	95.60	–	–	–	2	50

All Open interest figs. are for previous day

■ EUROMARK OPTIONS (LIFFE) DM1m points of 100%

Strike Price	CALLS Sep	CALLS Oct	CALLS Nov	CALLS Dec	PUTS Sep	PUTS Oct	PUTS Nov	PUTS Dec
96625	0.085				0.120			
96750	0	0.010	0.020	0.030	0.240	0.300	0.370	0.380
96875	0				0.365			
97000	0	0	0.005	0.010	0.490	0.500	0.505	0.510

Est. vol. total, Calls [illegible] Puts 15481. Previous day's open int., Calls [illegible] Puts [illegible]

■ EURO SWISS FRANC OPTIONS (LIFFE) SFr 1m points of 100%

Strike Price	CALLS Sep	CALLS Dec	CALLS Mar	PUTS Sep	PUTS Dec	PUTS Mar
98500	0.025	0.050	0.105	0.125	0.230	0.320
98625	0.010			0.235		

Est. vol. total, Calls 245 Puts 210. Previous day's open int., Calls [illegible] Puts [illegible]

BASE LENDING RATES

	%
Adam & Company	7.50
Allied Irish Bank (GB)	7.50
•Henry Ansbacher	7.50
Banco Bilbao Vizcaya	7.50
Bank of Cyprus	7.50
Bank of Ireland	7.50
Bank of India	7.50
Bank of Scotland	7.50
Barclays Bank	7.50
Brit Bk of Mid East	7.50
•Brown Shipley & Co Ltd	7.50
Citibank NA	7.50
Clydesdale Bank	7.50
The Co-operative Bank	7.50
Coutts & Co.	7.50
Cyprus Popular Bank	7.50
Duncan Lawrie	7.50
Exeter Trust Limited	8.00
Financial & Gen Bank	8.00
•Robert Fleming & Co	7.50
Habib Bank AG Zurich	7.50
•Hambros Bank	7.50
Heritable & Gen Inv Bk	7.50
C. Hoare & Co	7.50
Hongkong & Shanghai	7.50
Investec Bank (UK) Ltd	7.50
Julian Hodge Bank	7.50
•Leopold Joseph & Sons	7.50
Lloyds Bank	7.50
Midland Bank	7.50
NatWestminster	7.50
•Rea Brothers	7.50
Royal Bk of Scotland	7.50
Scottish Widows Bank	7.50
•Singer & Friedlander	7.50
•Smith & Williamson	7.50
Sun Bank	7.50
TSB	7.50
United Bank of Kuwait	7.50
Unity Trust Bank Plc	7.50
Whiteaway Laidlaw	7.50
Yorkshire Bank	7.50

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COMMODITIES & AGRICULTURE

RUSSIAN MELTDOWN ALUMINIUM, COPPER AND NICKEL STOCKS ALREADY LOW

Analysts see sharp falls in metal supplies

By Kenneth Gooding, Mining Correspondent

Supplies of aluminium, copper and nickel could be cut back significantly at a time when global stocks are relatively low because of Russia's financial meltdown, analysts suggest.

They dismiss the idea that the collapse of the rouble will encourage big increases in exports of these metals. They say Russia has little stock and is already selling to western markets nearly as much as it produces.

There could also be long-term, debilitating effects on the mining and metals processing industry. Tony Warwick-Ching at Flemings Global Mining Group suggested Russian mines and plants, cut off from foreign investment for refurbishment, might gradually collapse and their output fall, as happened in the Congo, Zambia and other countries deprived of foreign investment for long periods.

Many big investment projects in Russia are increasingly dependent on foreign expertise as well as finance.

"With foreign direct investment shut off or reduced, the operations – some of which had begun to improve recently – will decay further, output potential will gradually decline and exports slide," said Mr Warwick-Ching

On the disruption to metal production or deliveries, Annemarie Gardner and Kenneth Gray, analysts at ABN Amro, said: "Uncertainty among western partners about the safety of transactions or the continuity of deliveries could in extreme conditions lead to a serious credit crunch and production problems.

"Given the very low level of metal and steadily falling inventories in the west, any unexpected supply disruptions will lead directly to shortages of metals."

In a special report, the ABN Amro analysts said the Russian Federation accounts for 23 per cent of global nickel production, 13 per cent of aluminium and 4 per cent of copper output.

They suggested that Norilsk, which produces most of Russia's nickel and copper, could only increase output after substantial capital expenditure.

"Norilsk's competitors, Uralectronomed and Uralnickel, are not major producers or exporters and could well go bankrupt in the present environment," they said.

Even if Russia's domestic aluminium demand halved, the impact on global markets would not be dramatic.

"We believe the economic crisis will probably cap the rate at which aluminium smelters can produce. The smelters rely on imported raw materials which may face cross-border transaction problems because of the instability. Also, the smelters will have more difficulty raising cash for increased working capital requirements," they said.

Mr Warwick-Ching suggested there might be increased exports of scrap, which could be a problem for copper and nickel.

The ABN Amro analysts argued, however, that low metal prices have reduced the attractiveness of scrap collection, and the cost of collection in Russia has risen substantially because most scrap arriving in European markets is brought from the Urals.

"This means higher transport costs at a time when margins are already negative," they said in their report.

India to set up soyabean exchange

By Kunal Bose in Calcutta

India is to set up a domestic futures exchange for soyabeans, the country's third largest oilseeds crop after groundnut and rapeseed/mustard.

The Soyabean Processors Association has been given the go-ahead by the federal government to start trading futures in soyabeans and soyabean products, though trade officials say it will take at least six months to draw up the contracts and regulations and build the infrastructure, including a clearing house.

The contracts and trading rules will also require approval from the Forward Markets Commission.

The futures trading will cover soyabeans and soyabean oil and cakes produced in India, but will exclude imports.

However, the government plans to extend the futures trading to all important oilseeds so that farmers can secure better prices and oil extraction units and refineries can plan production in advance.

Trade officials say the government will allow futures trading in groundnut and rapeseed/mustard early next year.

Soyabean is India's fastest expanding oilseed in terms of land coverage and production, and the area under the crop has increased 500,000 hectares to 6.2m hectares this season.

"A lot of fallow land in Madhya Pradesh, Rajasthan and Maharashtra, the three major soyabean producing states, is being brought under the crop," said VMA, a research institute for oilseeds.

Prices of edible oils have risen steadily since January, encouraging farmers to grow peanuts, groundnuts and sunflowers over much larger areas. The total area under oilseeds is up 1.5m hectares to 16.5m hectares this season, said trade officials.

This season's soyabean harvest will start during the next two weeks, and VMA said the crop was "in excellent shape and there are no reports of pests and diseases". Good rains from the monsoon and the cultivation of additional land for soyabeans mean there is likely to be a record crop of nearly 7m tonnes, against 6.5m tonnes last season.

Rising prices have encouraged farmers to grow oilseeds over much larger areas Panos Pictures

Storm report supports oil

MARKETS REPORT

By Robert Corzine, Kenneth Gooding and Gary Mead

The gloom that has enveloped the oil markets of late was partially lifted yesterday by a storm in the *Gulf of Mexico* that threatened offshore output.

The evacuation of a number of production platforms underpinned prices, with Brent Blend for October delivery quoted at $12.57 a barrel in late trading on London's International Petroleum Exchange, one cent up on Friday's close.

The threat of production disruptions in the US helped offset earlier comments from Amer Muhammad Rasheed, Iraq's oil minister, who said Baghdad intended to raise its export volumes during the next phase of the oil-for-food programme. A steady rise in Iraqi exports has been one of the main reasons behind the low oil price.

Gold in London clawed its way back from a 19-year low on Friday of $273.40 a troy ounce to an afternoon "fix", of $279, up $5.60, or 2 per cent. Dealers said this was the result of some short covering and some Japanese buying as the yen rallied.

On the London Metal Exchange traders said aluminium was also lifted by similar factors.

Robin Bhar at Brandeis (Brokers) said three-month aluminium's $21 a tonne, or 1.5 per cent, rise to $1,383 was based on Japanese buying encouraged by the stronger yen. The premium for copper for immediate delivery, compared with metal for delivery in three months, which reached more than $30 a tonne on Friday, eased yesterday and by the close was $4. Three-month copper closed at $1,642 a tonne, up $25, or 1.5 per cent, from Friday's close.

On the London International Financial Futures and Options Exchange November coffee ended $25 down at $1,605 a tonne, on another day of low volumes, with just 3,643 contracts traded. September cocoa, however, ended more positively, closing £7 higher at £1,076 a tonne, although volumes were also low, at 3,206 lots.

NEWS DIGEST

GOLD

Congo faces claim over expropriation of mines

The government of the war-torn Democratic Republic of Congo – formerly Zaire – is facing a claim for more than US$1bn from Banro Resources, a small Toronto-listed exploration company. Lawyers acting for Banro's US subsidiary have filed a claim at the International Center for the Settlement of International Disputes in Washington seeking restitution for "the sudden and unlawful expropriation of the company's gold mining concessions in eastern Congo".

William Wilson, president of Banro American Resources, said: "Banro's story has become widely known among foreign investors in the Congo and has had an immediate chilling impact, particularly in the critical mining sector." Banro says the government unilaterally dissolved its Congolese subsidiary and terminated a 25-year mining convention.

The government said this was because of "irregularities" when Banro's 93 per cent owned subsidiary, Sakima, was set up to take over mining concessions held since the early 1990s by a predecessor company, Sominki.

Discussions with President Laurent Kabila's office appeared to indicate an acknowledgement that a mistake may have been made by the government in this case, Mr Wilson suggested. "We will take any and all steps to protect our lawful interests and have asked our lawyers to explore other legal remedies, including additional lawsuits in US federal court." **Kenneth Gooding**

PEANUTS

Fears grow of global shortfall

There are growing fears of a global peanut shortfall this year and next, as recent floods in China and earlier torrential rainfall in Argentina – two of the world's biggest producers – have badly affected the harvesting, quality and total size of the current crop.

This follows a forecast by the US Department of Agriculture that US peanut production, which has been affected by drought, will fall 2 per cent this year to 1.58m tonnes. The state of Georgia, the country's largest producer, is predicted to harvest only 592,330 tonnes this year, against 605,021 tonnes in 1997, while Florida's harvest is predicted to drop by 15 per cent. Because of the drought in the biggest peanut-growing states, prices of US peanuts rose by about 20 per cent in July; they have recently stabilised at about 40 cents a pound.

In Argentina, where harvesting normally takes place in April and May, the heavy rainfall delayed lifting of the crop by two months and has substantially reduced the expected crop size. Traders say the total available export crop could be reduced by as much as 38 per cent, to 330,000 tonnes, against 530,000 tonnes expected at the beginning of April.

China's flooding has also damaged oilseed crops and is therefore likely to mean increased demand for peanuts to crush for oil, putting even greater pressure on prices. Prices of peanuts on the international markets have recently breached $1,000 a tonne, against $930 a tonne a month ago. **Gary Mead**

COMMODITIES PRICES

BASE METALS

LONDON METAL EXCHANGE

(Prices from Amalgamated Metal Trading)

■ ALUMINIUM, 99.7 PURITY ($ per tonne)

	Cash	3 mths
Close	1380.5-1.5	1379-80

Precious Metals continued

■ GOLD COMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Sep	279.0	+3.3	286.0	286.0	–	3
Oct	279.8	+3.3	280.6	278.4	–	11,540
Dec	282.2	+3.3	283.0	278.3	–	118.2k

GRAINS AND OIL SEEDS

■ WHEAT LIFFE (100 tonnes; £ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Sep	70.00	+0.50	–	–		
Nov	71.50	+0.60	71.60	71.40		
Jan	73.60	+0.50	73.50	73.20		

■ FREIGHT (BIFFEX) LIFFE ($10/index point)

Oct	920	+10	920	920	10	461
Jan	950	–	–	–	–	399
Apr	975	–	–	–	–	201
Jul	870	–	–	–	–	[illegible]
Total					15	1,618

	Close	Prev
BFI	817	817

PULP AND PAPER

■ PULPEX OMLX (US$; 24 air dry tons)

	Sett price	Day's change	High	Low	Vol	Open int
Sep	380.00	-33.0	405.00	380.60	59	304
Dec	460.50	–	462.50	455.00	77	265
Total						

FUTURES DATA

All futures data supplied by CMS.

Tea from the Tea Brokers' Association Mombasa There was a good demand. Demand from the Sudan, Yemen and Middle East outlets was well maintained. Somalia was more active. Brighter BP1s were irregularly easier 5-20 cents. Neater mediums were about firm but others eased 2-4 cents. Lower mediums and plainer sorts were firm to dearer. Brighter and colouiry medium PF1's were easier 5-15 cents with lighter sorts down 2-7 cents. Selected lines of lower mediums gained 20 cents. Others and plainer sorts sold at last rates. Some selected brighter and mediums P.Dusts rose but others were irregularly easier.

SOFTS

■ COCOA LIFFE (10 tonnes; £/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Sep	1043	+14	1046	1038	422	923
Dec	1076	+7	1083	1070	2,236	65,129
Mar	1101	+7	1105	1094	512	42,540

■ ORANGE JUICE NYCE (15,000lbs; cents/lbs)

Sep	113.80	+0.80	113.80	112.70	1,921	–
Nov	116.85	+0.20	117.50	116.25	2,919	–
Jan	119.50	–	120.00	119.35	433	–
Mar	122.35	-0.25	122.80	122.40	43	–
May	125.90	+0.50	125.90	125.30	52	–
Jul	128.05	-0.15	–	–	–	–
Total					5,373	27,447

VOLUME DATA

Open Interest and Volume data shown for contracts traded on COMEX, NYMEX, CBT, NYCE, CME, CSCE and IPE Crude Oil are one day in arrears. Volume & Open Interest totals are for all traded months.

INDICES

■ Reuters (Base: 18/9/31 = 100)

Sep 1	Aug 28	month ago	year ago
1508.1	1506.2	1562.3	1920.7

■ CRB Futures (Base: 1967 = 100)

Aug 31	Aug 28	month ago	year ago
195.68	195.35	–	–

■ GSCI Spot (Base: 1970 = 100)

Aug 31	Aug 28	month ago	year ago
139.96	137.92	143.60	155.77

LME WAREHOUSE STOCKS (tonnes)

Aluminium	[illegible]	to	454,450
Aluminium alloy	+240	to	73,980
Copper	+4,200	to	305,375
Lead	-25	to	115,550
Nickel	[illegible]	to	59,520
Zinc	-575	to	368,075
Tin	-15	to	7,285

MEAT AND LIVESTOCK

■ LIVE CATTLE CME (40,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Aug	58.700	-0.400	58.950	58.500	273	360
Oct	59.000	–	59.600	58.050	10,004	41,430
Dec	61.030	+0.075	61.500	59.800	3,426	22,946

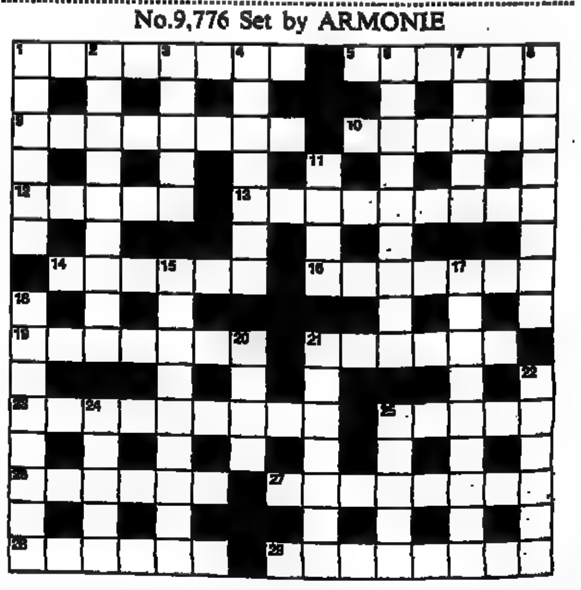
LONDON TRADED OPTIONS

LONDON SPOT MARKETS

JOTTER PAD

CROSSWORD

No.9,776 Set by ARMONIE



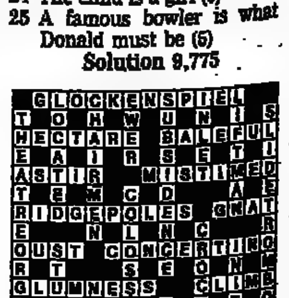
ACROSS

1 Rose drove quickly round the rabble (8)
5 Married to a northerner? That may bring good luck (6)
9 A sovereign posed for a man and a dog (8)
10 Bird let out a cry having tail twisted (6)
12 He admits one runs to capture wicket (5)
13 Peripatetic merchant shows the spirit o' the game (5,4)
14 Superior sister to a second rate English queen (6)
16 It's a bloomer to be straitlaced and dance topless (7)
19 Experience fear as Mark interrupts singer (7)
21 Tell story to eminent scientist (6)
23 Stable hand crosses stream for a place to eat (5,4)
25 Foreign wife in the East End (5)
26 Tuna is stewed in the USA (6)
27 The sect conceals a blow from the war engine (8)
28 Animation features design of green and yellow, initially (6)
29 Bank accepting money of late (8)

DOWN

1 Dog had to be eaten by pig (6)
2 Lord rebelled over money (4,5)
3 Proclaim the goat's to lose its head (5)
4 Masseur manipulated old scholar (7)
6 Goddess wrongly paid hero to kidnap model (9)
7 The atmosphere in the firm is capital (5)
8 Supporter, on the whole, is temperate (8)
11 Produce a whip (4)
15 Preserving limb affected with mange (9)
17 Investment requires detachment and faith (4,5)
18 Decline to find a good point in the situation (8)
20 Upset angry archer (4)
21 Pop is to prevaricate about drink (7)
22 Religious festival near seaside resort (6)
24 The child is a girl (5)
25 A famous bowler is what Donald must be (5)

Solution 9,775



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FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

OFFSHORE AND OVERSEAS

BERMUDA (FSA RECOGNISED)

Fidelity Currency Funds Ltd

Jupiter Asset Management (Bermuda) Ltd

Newport Investment Management

BERMUDA (REGULATED)(**)

GUERNSEY (FSA RECOGNISED)

Royal Bk of Canada O/S Fd Mgrs Ltd

PO Box 246, St Peter Port, Guernsey 01481 723021

Sarasin Funds Mngmt (Guernsey) Ltd

PO Box 246, St Peter Port, Guernsey 01481 723021

Schroder Investment Mngmt (Guernsey) Ltd

GUERNSEY (REGULATED)(**)

IRELAND (FSA RECOGNISED)

Aberdeen Prolific International Fund Plc

The Hotel Mutual Investment Company Plc

Bank of Ireland Bolt Managers Ltd - Contd.

Chemical Ireland Fund Administrators Ltd

Calyx Fund

Cazenove International Fund Plc

CSI Investment Fund (Ireland)

Morgan Grenfell Investment Funds Ltd - Contd.

Citizens Investment Trust Mngt Company

CoreStates Fund Management (Ireland) Ltd

DMG International Fund

IRELAND (REGULATED)(**)

ISLE OF MAN (FSA RECOGNISED)

ISLE OF MAN (REGULATED)(**)

JERSEY (FSA RECOGNISED)

JERSEY (REGULATED)(**)

LUXEMBOURG (FSA RECOGNISED)

Offshore Funds and Insurances

FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

Aberdeen Fund Mngrs (Luxembourg) Ltd (u)

Foreign & Colonial Emerging Markets Ltd (u)

Mercury Asset Management - Contd.

ACM Offshore Funds - Contd.

[illegible]

LUXEMBOURG (REGULATED)(**)

OFFSHORE INSURANCES

هكذا من الأصل

FT MANAGED FUNDS SERVICE

Offshore Insurances and Other Funds

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

Professional Investment Consultants

Royal & Sun Alliance Intl Financial Srvs

Asia Debt Management Hong Kong Ltd

Asia Pacific Securities Corp Ltd

Asian Convertibles & Income Fd (Cayman)

Atlantico Investment Ltd

Atlantic Investment Management, Inc

Daiwa Intl Capital Management (H.K.) Ltd

Genesis Fund Managers Ltd

Global Asset Management

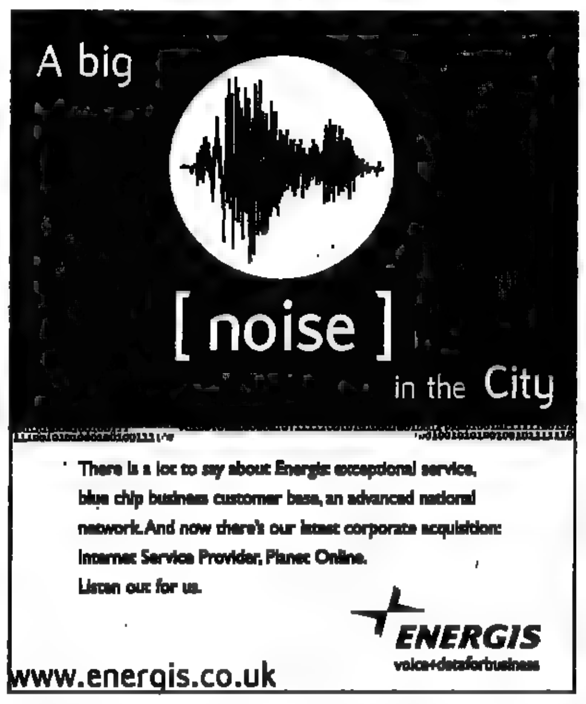
Indocam Asia

Magnum Funds - Contd.

PRS International

Pacific Chartered Capital Mgmt Limited

Societe Generale Group



Global Asset Management - Contd.

Jardine Fleming Unit Trusts Ltd - Contd.

OTHER OFFSHORE FUNDS

LONDON SHARE SERVICE

ALCOHOLIC BEVERAGES

	Notes	Price	+ or -	52 week high	52 week low	Volume '000s	Yld Gr's	P/E
Allied Domecq	†‡	580½	-5½	646	474	2,676	4.9	12.2
Bulmer (HP)		335xd	-2½	485½	285	-	5.6	14.4
Burn Stewart		11	+½	53½	8½	118	19.3	-
Diageo		635	+30	*795	432	7,138	3.5	27.7
Glenmorangie A		830	-10	979½	755	-	2.1	19.3
B		925	-12½	1090	890	-	1.0	43.1
Highland	†	227	-6½	325	227	12	5.0	10.6
5¼pc Cv Sb Bd		96	-½	98½	85½	-	6.3	-
Kirin Y		484	+25½	588	416½	-	1.1	-
Matthew Clark		140xd	-6½	288	140	80	11.6	4.8
Merrydown		37½	-	74½	37½	-	-	Φ
Seagram C$		£18¼	-1⅛	£28⅛	£18⅛	-	1.4	-

BANKS, RETAIL

BREWERIES, PUBS & REST

BUILDING MATS. & MERCHANTS

CHEMICALS

CONSTRUCTION

CONSTRUCTION - Continued

DISTRIBUTORS

DIVERSIFIED INDUSTRIALS

ELECTRICITY

ELECTRONIC & ELECTRICAL EQPT

ENGINEERING

ENGINEERING - Continued

ENGINEERING - Continued

ENGINEERING, VEHICLES

EXTRACTIVE INDUSTRIES

FOOD PRODUCERS

FOOD PRODUCERS - Continued

GAS DISTRIBUTION

HEALTH CARE

HOUSEHOLD GOODS & TEXT

INSURANCE

INSURANCE - Continued

INVESTMENT TRUSTS

Approved by the Inland Revenue

INVESTMENT TRUSTS - Continued

INV TRUSTS SPLIT CAPITAL

Approved by the Inland Revenue

هكذا من الأصل

LONDON SHARE SERVICE

OTHER INVESTMENT TRUSTS

INVESTMENT COMPANIES

LEISURE & HOTELS

LIFE ASSURANCE

MEDIA

MEDIA - Continued

	Notes	Price	+ or -	52 week high	low	Volume '000s	Yld Gr's	P/E
Reed Int	‡	459½xd	+10½	*739	430	2,997	4.1	49.8
Reuters	♣†	489½xd	-29½	779	460	7,036	3.5	16.8
Saatchi & Saatchi	♣	101½	-2	185	100½	747	1.5	12.9
Sanctuary		17½	-1½	28¼	17	-	4.9	24.8
Scottish Media	♣	611	-28	838	611	32	4.6	13.6
Scottish Radio	♣†	527½	-24	577	335	-	2.4	19.2
Sleepy Kids		15	-1	21	6½	-	-	-
Southnews		307½	-37½	530	307½	-	3.8	10.5
Sterling Pub		18½	—	25½	12½	-	2.7	6.2
Tarsus Grp	□	42½	-3	79½	42½	-	-	-
Taylor & Francis	↓	229½	-8	249½	229½	-	1.7	27.5
Taylor Nelson Sofres	♣	104	-7	*145½	51¼	325	1.2	32.3
Television Corpn	♣	170	-9	270	170	-	2.8	12.0
Tempus	♣	233½	-5	269½	162½	-	1.5	25.2
Thomson CS	‡	1319½	-60½	1820	1319½	-	3.6	27.7
Trinity		451	-10	673	449	171	3.7	14.3
Ulster TV		172½	-6	*287	172	8,490	4.1	16.0
Utd News & Media	♣xd	669½	-1½	953	625	735	3.6	14.4
VCI	‡	47½	-2½	225	47½	-	20.8	3.5
VTR		68	-5½	127½	50½	-	6.6	8.4
WPP	♣‡	324½	-3½	408	240	1,583	0.8	19.0
Watermark	♣	40	-5½	54½	27	68	2.8	11.0
Westport		2	—	3¼	1¼	562	-	-
Whitington	♣	152½	-10	285	110½	-	1.2	27.4

OIL EXPLORATION & PRODUCTION

OIL, INTEGRATED

OTHER FINANCIAL

PAPER, PACKAGING & PRINTING

PHARMACEUTICALS

PROPERTY

PROPERTY - Continued

RETAILERS, FOOD

RETAILERS, GENERAL

RETAILERS, GENERAL - Continued

SUPPORT SERVICES

SUPPORT SERVICES - Continued

TELECOMMUNICATIONS

TOBACCO

TRANSPORT

TRANSPORT - Continued

WATER

AIM

AIM - Continued

AMERICANS

CANADIANS

SOUTH AFRICANS

TRADED INDEX SECURITIES

GUIDE TO LONDON SHARE SERVICE

Prices and trading volumes for the London Share Service are delivered by Extel, part of Financial Times Information.

Company classifications are based on those used for the FTSE Actuaries Share Indices.

Closing mid-prices are shown in pence unless otherwise stated. For FTSE 100 Index constituents and reserves contained in the Trading Volume table on the LSE page, last trade prices at or prior to 4.30pm market close are shown, as these shares are now traded on the Stock Exchange Electronic Trading System ("SETS"). Highs and lows are based on intra-day mid-prices/last trades over a rolling 52 week period.

Trading Volumes are end of day accumulated totals. Dashes indicate that either no trade has taken place during the day or the data is not available for those particular securities. Volumes shown for foreign securities are based on London trading.

Where stocks are denominated in currencies other than sterling, this is indicated after the name. Prices shown for some of these foreign securities are converted into sterling from latest available local Stock Exchange prices.

Symbols referring to dividend status appear in the notes column daily as a guide to yields and P/E ratios. Dividends and Dividend covers are published on Monday.

Earnings used in calculations are based on IIMR 'Headline Earnings' formula.

Price/earnings ratios are based on latest annual reports and accounts and, where possible, are updated on interim figures.

Yields are based on mid-prices, are gross, adjusted for a dividend tax credit of 20 per cent and allow for value of declared distribution and rights.

Estimated Net Asset Values (NAVs) are shown for Investment Trusts, in pence per share, along with the percentage discounts (Dis) or premiums (Pm -) to the current closing share price. The NAV basis assumes prior charges at par value, convertibles converted and warrants exercised if dilution occurs.

- * Highs and lows marked thus have been adjusted to allow for capital changes.
- † Interim since increased or resumed
- ‡ Interim since reduced, passed or deferred
- ♦ Figures or report awaited
- ♥ Rule 2.1(a)(iv) Overseas incorporated companies listed on an approved exchange.
- ♣ Free annual/interim report available, see details below.
- †† Rule 4.2(g) Irish incorporated non-listed companies.
- ¤ Price at time of suspension
- , Indicated dividend yield after pending scrip and/or rights issue
- ♦ Merger bid or reorganisation in progress
- § Forecast dividend yield, p/e based on earnings updated by latest interim statement.
- ♠ Unregulated collective investment scheme.

This service is available to companies whose shares are regularly traded in the United Kingdom for a fee of £1485 a year for each security shown, subject to the Editor's discretion.

♣ FT Free Annual Reports Club

You can obtain the current annual/interim report of any companies annotated with the ♣. Ring 0181 770 0770 (open 24 hours including weekends) or Fax 0181 770 3822. Reports may also be ordered via the internet at http://www.icbinc.com. All reports will be sent the next working day, subject to availability.

FT Company Focus / Focus Plus

Please note that FT Company Focus/Focus Plus reports ceased to be available as from May 4th 1998. However ShareFinder company reports, incorporating current and historic financial information, key performance data and consensus recommendations, may still be purchased by calling 0870 601 4800.

FT Cityline

Up-to-the-second share prices are available by telephone from the FT Cityline service. See Monday's share price pages for details. Calls are charged at 50p per minute at all times.

An international service is available for callers outside the UK, annual subscription £250 stg. Please consult your financial adviser and verify financial pricing information obtained via FT Cityline before making any investment decision.

All access to and use of FT Cityline is subject to FT Cityline terms and conditions - your copy will be sent free on request. Call 0171 873 4378 for more information on FT Cityline.

The share prices printed on these pages are also available on the internet at http://www.FT.com.

LONDON STOCK EXCHANGE

Equities take a beating but fight back from lows

MARKET REPORT
By Steve Thompson,
UK Stock Market Editor

There were no prizes for guessing that the FTSE 100, along with all the other UK market indices, would finish sharply lower yesterday.

But there were few observers in the London market who would admit to picking a closing Footsie loss of 80 points after the Dow Jones Industrial Average had closed 500 points down on Monday evening.

Most, by their own admission, would have plumped for a three-figure fall, and most, too, would have put the loss in excess of 200 points.

In the event, the FTSE 100 closed a net 80.3 or 1.5 per cent lower at 5,169.1, a performance greeted by many as impressive in view of Wall Street's overnight 512-point fall, its second-biggest points drop ever and a decline of 5.6 per cent.

On the downside, there was much less optimism among the market's second-liners and small-cap stocks, which had to absorb another severe hammering.

The FTSE 250 index relinquished 158.0 or 3.3 per cent to 4,627.3 and the FTSE SmallCap index slid 78.7 or 3.7 per cent to 2,947.4.

Just as London plummeted at the outset because of Wall Street's overnight retreat, so it stabilised as the US market embarked an a strong recovery, albeit after a sequence of hefty swings in both directions soon after the start of trading in the US.

At the outset, the Dow pushed up more than 100 points before retreating the same amount and then pushing up again to record a gain of more than 200 points an hour after London finished trading for the day.

It was the continuing turmoil in Russia, both on the political and economic fronts, that was behind the wild swings in global stock market sentiment, with worries that the perils that have struck most of the far eastern and eastern European markets might now move on to envelop Latin America.

Turnover on London's equity market was a disappointing 800.9m shares, an indication, according to marketmakers, that the big domestic and international institutions had not embarked on a sell-off of UK stocks.

Although still extremely nervous of the potential for big setbacks triggered by events in Russia, marketmakers said they felt the UK might now be approaching the bottom in the current cycle.

One said: "The institutions are pumped full of cash and are picking off the quality stocks on days like this; confidence has been dented but not massively and London still offers better value than Wall Street."

Another pointed out that London felt relatively sound at the finish of the day and said there was a feeling that much of the bad news was now in the price. "Footsie 5,000 looks increasingly like the bottom in the short term," he said.

Some strategists maintained, however, that there was more pain to come.

"The downside risks for London equities remain greater than those on the upside," said Richard Jeffrey, group economist at Charterhouse Tilney.

He insisted that the poor earnings growth outlook for UK stocks had not been fully factored into the market.

Russian losses hit Barclays

COMPANIES REPORT
By Joel Kibazo and Martin Brice

The full impact of the Russian economic crisis hit home yesterday when Barclays tumbled after it surprised the market with news of the scale of its exposure to the troubled economy.

Barclays announced pre-tax charges and losses of £325m to cover its Russian exposure and resulting falls in other markets, well above the expected £100m level.

That exposure was mostly held within Barclays Capital, the majority being in the form of Russian government securities and financial institutions' counterparty credit.

"This is not good news for a group that was busy trying to convince the market that its quality and risk control had improved," said one specialist on the sector. Another analyst said: "With this news, the risk premium for Barclays has just gone up."

The shares yesterday gave up 78 to £13.37 following brisk trading of 7.8m.

Rumours suggesting a merger between Shell and US group Texaco continued in an otherwise soggy market, helping drive shares in the Anglo-Dutch oil giant sharply ahead.

On Monday Texaco dismissed talk it would merge its operations with Royal Dutch/Shell Group.

"There are two distinct issues. The fate of our European downstream operations, the review of which is not complete and this, which is wild speculation," a spokesman said.

With both companies having said they have held talks on their European refining and marketing operations after Texaco launched a review of the division's performance late last year, rumours of a full merger persisted yesterday.

Shares in Shell jumped 10¾ to 327p in busy trade of 21m, one of the most actively traded stocks yesterday.

Takeover talk has been rife in the sector since BP's surprise takeover of Amoco last month. BP shares followed the market trend finishing 13 off at 740½p.

Selling ahead of tomorrow's interim results saw Enterprise Oil slip 25 to 352p. Lehman Brothers is predicting the group will reveal net income of £40m, down 50 per cent year on year. It has the stock on an "outperform" rating for its "strong asset base and positive exploration newsflow".

The bloodbath was most severe among information technology stocks, where investors endured falls in excess of 10 per cent.

The general market decline combined with the drop in technology stocks on the Nasdaq market in the US to sour sentiment in the IT sub-sector. However, volumes were small, suggesting that the pain was largely a markdown and the large institutions had not given in to the temptation to take profits.

IT stocks have been highly rated and retained much of their premium to the market even after yesterday's falls.

The general fall was strong enough for London Bridge Software to unveil interim results more than doubled yet see its shares fall more than 25 per cent, or 312½ to 900p.

The decline prompted one of the bears on the sector to amend its stance on some stocks. Roger Phillips, IT analyst at Granville, said: "We have been bearish on the larger stocks in the first half of the year because valuations had become detached from trading fundamentals. It is quite important now to focus on quality companies because a scatter-gun approach to buying IT stocks at this point might be asking for trouble."

The somewhat illiquid and volatile shares in Misys were among the worst performers in the Footsie, as they fell 346 to £23.04. Those suffering the biggest falls in the FTSE 250 could have formed a list of the leading lights of the IT index. They were led by Logica, off 237½ to £15.95, and FI Group, down 217½ at £14.62½.

Retail safe haven

Buyers seeking safe havens in the current turmoil in world markets turned to the retail sector with several stocks aided by broker recommendations.

In a review on general food retailers, Panmure Gordon slashed 1999 profit expectations for several sector leaders, predicting slower consumer spending.

However, Panmure continues to rate several stocks amidst the current market volatility. These include Marks and Spencer, which gained 26 to 541p, and Boots, in which the shares appreciated 38 to £10.31.

Among the food retailers, the broker favours Safeway. It was 5¾ up at 314¾p as it announced that in-store banking at its supermarkets will spread to 25 branches over the next 12 months after successful trials with partner Abbey National, 4 lighter at £11.16. Tesco, also on the Panmure buy list, closed 5 better at 173p.

Other stocks in demand included Kingfisher, which rose 28¼ to 518¼p, and Asda Group, whose shares advanced 12½ or 7.4 per cent to 180½p, to make it the best performer in the FTSE 100. Volume was 7.4m.

A steep decline in Alliance & Leicester shares – they fell 83½ to 831½p – owed more to a "rogue trade" price entered into the SETS trading system just before Friday's close than to any great market stories. Dealers said there had been ongoing talk of a bidder lurking in the sidelines for A&L, but yesterday's fall was more of a correction than anything else.

The takeover battle for Dennis took a dramatic turn after a market raid by Merrill Lynch and CSFB. They paid 450p a share for 3.4 per cent of the chassis maker on behalf of Mayflower, bringing its stake to 4.9 per cent.

The surprise move suggests that institutional shareholders had started to opt for the 450p cash offer from Mayflower, rather than the rival one from bus body maker Henlys.

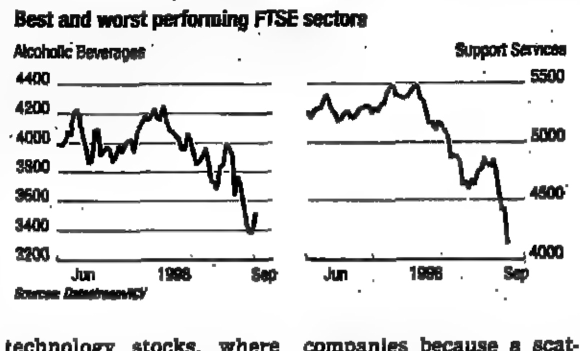
At last night's close, the Henlys offer was worth 470p. However, Henlys' proposal is partly paper, and its shares have fallen from 564p when the offer was made to 457p last night, down 11¼.

Dennis shares were down 9 at 456p while Mayflower was down 6½ at 159½p.

Figures from Persimmon brought cold comfort to investors in housebuilding stocks. There were no nasty surprises in the figures, which at £28m pre-tax were in line with expectations.

The figures started the results season for the housebuilders and although Persimmon moved against the market decline to rise 6¼ to 148p, the positive sentiment failed to spread to the rest of the sector.

Best and worst performing FTSE sectors



Source: Datastream/ICV

FT 30 INDEX

	Sep 1	Aug 28	Aug 27	Aug 26	Aug 25	Yr ago	*High	*Low
FT 30	3300.5	3329.6	3406.2	3540.2	3607.3	3158.2	[illegible]	3221.3
Ord. div. yield	3.26	3.21	3.12	3.03	2.97	3.07	4.22	2.72
P/E ratio net	20.86	20.83	21.46	[illegible]	22.54	20.66	28.41	16.80
P/E ratio nil	20.50	20.80	21.37	22.04	22.45	20.31	28.19	16.71

FT 30 since compilation: high 3920.3 11/05/98; low 49.4 26/06/40. Base Date: 1/7/35.

FT 30 hourly changes

9	10	11	12	13	14	15	16	High	Low
3329.5	3255.5	3244.1	3298.9	3322.0	3314.3	[illegible]	3315.8	3329.5	3221.3

STOCK MARKET TRADING DATA

	Sep 1	Aug 28	Aug 27	Aug 26	Aug 25	Yr ago
SEAQ bargains	80,734	73,690	56,591	53,186	[illegible]	41,361
Equity turnover (£m)†	-	3472.1	[illegible]	2870.6	2503.3	2757.0
Equity bargains†	-	55,589	41,284	39,821	[illegible]	40,204
Shares traded (m)†	-	905.3	898.5	684.1	[illegible]	745.7
Total market bargains‡	-	72,192	53,336	54,933	55,952	-
Total turnover (£m)‡	-	4908.1	4053.1	4027.7	3518.5	-
Total shrs traded (m)‡	*800.9	[illegible]	946.5	907.8	895.6	-
Tradepoint turnover (£m)	[illegible]	47.9	[illegible]	33.4	30.2	4.8
Tradepoint shrs traded(m)	12.5	7.6	10.0	10.8	9.2	1.0

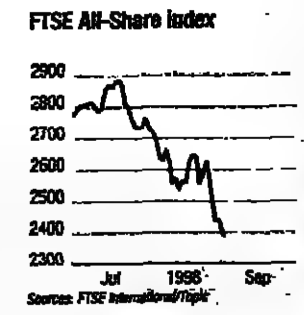
†Excluding intra-market and overseas turnover but including Crest turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover

London market data

Rises and falls*		52 Week highs and lows		LIFFE Equity options	
Total Rises	277	Total Highs	6	Total contracts	23,660
Total Falls	2,208	Total Lows	783	Calls	10,347
Same	485			Puts	13,313

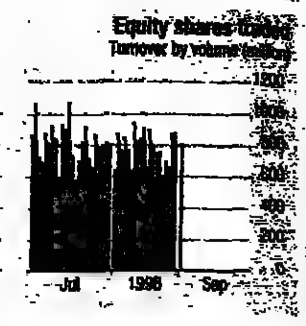
Sep 1 *Data based on Equity shares listed on the London Share Service.

FTSE All-Share index



Sources: FTSE International/Topic

Equity shares traded
Turnover by volume (million)



Indices and ratios

FTSE 100	5169.1	-80.3	FT 30	3300.5	-29.8
FTSE 250	4627.3	-158.9	FTSE Non-Fins p/e	20.20	20.61
FTSE 350	2468.6	-46.5	FTSE 100 Fut Sep	5370.0	-195.0
FTSE All-Share	2393.25	-47.59	10 yr Gilt yield	5.50	5.45
FTSE All-Share yield	3.32	3.26	Long gilt/equity yld ratio	1.65	1.64

Best performing sectors

1. Alcoholic Beverages .... +3.6
2. Retailers: Food .... +3.2
3. Retailers, General .... +2.7
4. Electronic & Elec .... +2.1
5. Diversified Inds .... +0.7

Worst performing sectors

1. Support Services .... -6.4
2. Other Financial .... -5.6
3. Telecommunications .... -5.6
4. Gas Distribution .... -5.3
5. Leisure & Hotels .... -5.3

FUTURES AND OPTIONS

■ FTSE 100 INDEX FUTURES (LIFFE) £10 per full index point

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep	5240.0	5255.0	-115.0	5390.0	5110.0	51579	189784
Dec	5330.0	5329.5	-118.0	5440.5	5241.0	4253	25318
Mar		5383.0	-122.0			0	1245

■ FTSE 250 INDEX FUTURES (LIFFE) £10 per full index point

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Sep		4821.0	-111.0			0	6619
Dec	4847.0	4888.0	-111.0	4847.0	4847.0	112	21

■ FTSE 100 INDEX OPTION (LIFFE) (*5201) £10 per full index point

	5050 C	5050 P	5100 C	5100 P	5150 C	5150 P	5200 C	5200 P	5250 C	5250 P	5300 C	5300 P	5350 C	5350 P	5400 C	5400 P
Sep	316½	141	282	161	264	183	225½	204½	197	226½	169	248½	147½	278	127½	308
Oct	430	244	401½	263	372½	283	343½	304	314	321	284½	335½	258	364	234½	393½
Nov	530	322	501½	343	473	364	444½	384½	415½	405½	388½	426	357	447	331	471½
Dec	608	355	577½	376	548½	399½	522	421	493½	442½	465½	464	437	486	409½	509½
Jun†			845	578½			792	622			738	665			686	712

Calls 2,183 Puts 2,046

■ EURO STYLE FTSE 100 INDEX OPTION (LIFFE) £10 per full index point

	5025 C	5025 P	5075 C	5075 P	5125 C	5125 P	5175 C	5175 P	5225 C	5225 P	5275 C	5275 P	5325 C	5325 P	5375 C	5375 P
Sep	331	137	293½	149	261	166	230	185	201	206	176	230½	153	257½	131	285½
Oct	446½	234½	412	250½	388	265	348½	286	318½	305½	288½	326½	262½	348½	236½	372
Nov	544	307	513	325	482½	344	454	364½	423½	383	394½	403	366½	424½	338½	446½
Dec	692	380			580½	397			488½	432½			442½	473½		
Mar†	770	480			705½	492½			648	530			590	588		

Calls 3,707 Puts 5,373 * Underlying index value. Premiums shown are based on settlement prices.
† Long dated expiry months.

LONDON RECENT ISSUES: EQUITIES

Issue price p	Amt paid up	Mkt. cap (£m.)	1998 High	1998 Low	Stock	Close price p	+/-	Net div.	Div. cov.	Grs yld	P/E net
*	F.P.	0.35	12½	[illegible]	[illegible]	12½		-	-	-	-
160	F.P.	1,563	182½	145	Coca-Cola Bev	146½	-8	-	-	-	-
-	F.P.	-	68	[illegible]	[illegible] Cap B Wt	38	-½	-	-	-	-
§114	F.P.	19.2	117½	85½	†Firestone D'mond	85½	-2	-	-	-	-
§	F.P.	-	188½	167½	GBGT Secs Zero	167½		-	-	-	-
-	F.P.	-	60	48	Gartmore Br I&G	45½	-3½	-	-	-	-
-	F.P.	-	97½	82	Do Inc	[illegible]	-½	-	-	-	-
-	F.P.	-	98½	83	Do New Inc	83	-½	-	-	-	-
-	F.P.	[illegible]	118½	97½	†Inter Link Foods	97½	-8	2.0	3.5	2.8	14.0
§130	F.P.	119.4	129½	122½	Kiln	122½	-2	W-	-	-	14.8
-	F.P.	405.1	98	94	MEPC Non Cum Pf B	[illegible]		-	-	-	-
-	F.P.	14.3	112½	109½	†Metnor	112½		b3.6	-	4.0	-
§	F.P.	5.76	18½	16½	Murray Extra Rtn Cap	16½		-	-	-	-
§	F.P.	27.5	100½	[illegible]	Do Inc	100½		b7.95	-	9.9	-
§	F.P.	23.8	99½	98½	Do Zero Div Prf	99½		-	-	-	-
*	F.P.	15.2	85½	37½	†Sodra Petroleum	37½		-	-	-	-
*	F.P.	4.96	[illegible]	90½	†SupaRole	90½		-	-	-	-
-	F.P.	-	34	21½	Syndicate Cap Wts 98/02	22½		-	-	-	-
-	F.P.	180.8	304	157½	Torotrak	157½	-12	-	-	-	-
§	F.P.	-	507	506	Tribune IT Index	506		-	-	-	-
-	F.P.	-	33½	[illegible]	Walker Crips Weiss II	33		-	-	-	-
§2	F.P.	2.46	2½	2½	†Wilmslow	2½		-	-	-	-

† Alternative Investment Market. § Placing price. * Introduction. For a full explanation of all other symbols please refer to The London Share Service notes.

FTSE GOLD MINES INDEX

	Aug 31	% chg on day	Aug 28	Year ago	Gross div yield %	P/E ratio	52 week High	52 week Low
Gold Mines Index (27)	701.88	-2.0	716.76	1411.83	2.73	-	1536.45	701.88
Regional Indices								
Africa (9)	811.35	+6.0	765.63	1419.05	5.77	32.80	1628.29	765.63
Australasia (7)	815.93	-1.1	824.86	1505.48	3.77	5.04	1505.05	815.93
Americas (11)	647.68	-5.7	686.70	1411.92	1.04	36.68	1574.16	647.68

Figures in brackets show number of companies. Basis US Dollars. Base Values: 1000.00 31/12/92. † Partial. Latest prices were unavailable for this edition.

FTSE Actuaries Share Indices — The UK Series

Produced in conjunction with the Faculty and Institute of Actuaries

	Sep 1	Day's chge%	Aug 28	Aug 27	Year ago	Gross yield%	Net yield%	Net cover	P/E ratio	Xd adj. ytd	Total Return
FTSE 100	5169.1	-1.5	5249.4	5368.5	4952.2	3.23	2.74	1.96	19.72	112.21	2275.52
FTSE 250	4627.3	-3.3	4786.2	4897.9	4633.2	3.57	3.02	2.00	17.55	95.44	1993.74
FTSE 250 ex Inv Tr	4683.3	-3.3	4842.4	4952.2	4650.7	3.66	3.11	2.06	16.57	98.75	2025.80
FTSE 350	[illegible]	-1.8	2516.1	2572.5	2383.3	3.29	2.79	1.97	19.30	53.09	2210.84
FTSE 350 ex Inv Tr	2475.8	-1.8	2521.9	2579.0	2385.5	3.30	2.80	1.98	19.12	53.52	1142.00
FTSE 350 Higher Yield	2403.0	-0.6	2418.0	2460.3	2303.2	4.43	3.76	1.60	14.86	66.44	1849.67
FTSE 350 Lower Yield	2538.6	-2.8	2612.1	2682.7	2467.2	2.37	2.01	2.07	25.44	42.34	[illegible]
FTSE SmallCap	2047.45	-3.7	2126.10	[illegible]	2250.00	3.92	3.19	1.94	16.41	40.66	1789.07
FTSE SmallCap ex Inv Tr	2042.00	-3.7	2121.31	2179.43	2229.87	4.18	3.40	2.04	14.67	42.58	1802.97
FTSE All-Share	2393.25	-1.9	2440.84	2497.31	2327.82	3.32	2.81	1.97	19.12	51.23	2183.79
FTSE All-Share ex Inv Tr	2404.05	-1.9	2451.03	2507.02	2330.66	3.34	2.83	1.98	18.85	51.86	1128.68

■ FTSE Actuaries Industry Sectors

	Sep 1	Day's chge%	Aug 28	Aug 27	Year ago	Gross yield%	Net yield%	Net cover	P/E ratio	Xd adj. ytd	Total Return
10 RESOURCES(22)	3596.98	-0.2	3605.95	3730.89	4940.09	4.26	3.69	1.68	17.66	88.48	1660.52
12 Extractive Industries(6)	2155.19	-2.9	2220.29	2247.06	4081.04	8.45	8.94	2.06	8.39	79.47	680.96
15 Oil, Integrated(4)	4150.66	+0.4	4133.09	4284.22	5280.75	4.10	3.51	1.58	19.24	98.56	1972.04
16 Oil Exploration & Prod(12)	1976.72	-4.8	2077.17	2172.48	3798.99	2.88	2.38	1.69	25.70	33.41	1228.65
20 GEN INDUSTRIALS(216)	1647.63	-1.6	1674.58	1724.73	2048.81	4.40	3.86	2.27	12.50	44.96	975.28
21 Construction(38)	1139.38	-2.6	1169.77	1205.26	1385.25	4.33	3.62	2.76	10.48	23.17	1018.82
22 Building Matls & Merchs(25)	1365.35	-1.8	1389.85	1393.19	1852.42	5.37	4.68	2.02	11.53	39.74	747.56
23 Chemicals(23)	2013.98	-4.1	2099.67	2145.42	2661.68	4.72	4.37	1.70	15.56	62.93	1040.43
24 Diversified Industrials(7)	1027.87	+0.7	1020.75	1017.08	1441.25	5.82	6.23	2.10	10.61	58.21	650.53
25 Electronic & Elect Equip(29)	2212.89	+2.1	2167.01	2298.96	2205.54	3.42	2.78	1.85	19.75	53.70	1235.84
26 Engineering(63)	2140.75	-2.3	2191.36	2261.12	2744.44	4.46	3.96	2.48	11.32	56.42	1389.92
27 Engineering, Vehicles(11)	3321.87	+0.1	3318.15	3465.78	3124.08	2.83	2.41	3.36	14.03	57.50	1838.38
28 Paper, Pckg & Printing(22)	1577.39	-3.5	1634.44	1672.33	2170.70	5.62	5.11	2.44	9.12	54.29	718.39
30 CONSUMER GOODS(90)	5342.04	-1.9	5443.22	[illegible]	4589.22	2.74	2.45	1.73	26.34	95.40	2121.75
32 Alcoholic Beverages(6)	3513.22	+3.6	3390.72	3453.31	3229.29	3.85	3.26	1.60	20.29	69.61	1377.30
33 Food Producers(25)	[illegible]	-0.3	3578.00	[illegible]	3052.48	2.93	2.49	2.10	20.29	64.63	1735.92
34 Household Goods & Textls(24)	2663.78	-0.2	2669.25	2722.24	3123.14	4.13	3.88	1.98	15.28	54.78	1125.50
36 Health Care(13)	2208.45	-0.4	2216.84	2214.89	2285.54	2.32	2.14	2.21	24.33	31.78	1416.37
37 Pharmaceuticals(19)	9137.36	-4.1	9524.41	9730.51	7452.82	[illegible]	[illegible]	[illegible]	40.80	145.50	3285.79
38 Tobacco(3)	5079.91	....	5079.45	5146.26	4402.87	5.06	4.47	1.61	15.31	130.10	1421.81
40 SERVICES(280)	3166.43	-2.6	3249.32	3339.92	2736.81	2.71	2.22	2.02	22.86	52.30	1750.89
41 Distributors(28)	1977.39	-3.3	2044.69	2071.32	2786.76	5.00	4.13	1.97	12.66	58.47	783.78
42 Leisure & Hotels(27)	2737.41	-5.3	2889.32	3002.47	3223.11	3.44	2.88	2.63	13.78	69.58	1557.97
43 Media(41)	3918.13	-1.4	3974.99	4081.61	4101.07	2.67	2.24	2.14	21.91	76.45	1493.33
44 Retailers, Food(13)	2893.93	+3.2	2804.04	2748.66	2406.89	3.13	2.51	2.12	18.84	55.00	1983.57
45 Retailers, General(49)	2184.84	+2.7	2126.81	2156.68	2241.43	3.40	2.73	2.18	16.90	47.04	1342.29
46 Telecommunications(10)	4385.21	-5.6	4646.36	4845.44	2358.32	1.98	1.64	1.46	43.18	47.70	2150.90
47 Breweries, Pubs & Rest.(24)	3231.50	-3.2	3339.54	3496.96	3375.10	3.80	3.05	2.37	13.90	65.00	1659.11
48 Support Services(64)	4138.01	-6.4	4422.31	4573.63	3138.80	1.47	1.24	2.70	37.54	32.13	2729.48
49 Transport(24)	3254.69	-1.6	3306.24	3394.97	2881.25	3.27	2.67	1.60	23.97	60.51	1458.76
60 UTILITIES(22)	3879.34	-1.4	3935.40	3903.64	3107.90	4.15	3.40	1.74	17.33	89.38	1869.51
62 Electricity(8)	4288.14	....	4287.46	4291.29	3494.48	4.69	3.75	1.90	14.03	107.21	2532.24
64 Gas Distribution(2)	2925.02	-5.3	3087.79	3014.01	2440.92	2.23	1.78	‡	‡	26.03	1690.58
68 Water(12)	3491.51	-0.3	3502.96	3473.30	2909.03	4.89	4.20	2.34	10.91	112.14	2185.18
69 NON-FINANCIALS(630)	2450.30	-1.9	2498.43	2556.39	2346.86	3.22	2.75	1.92	20.20	48.21	2006.52
70 FINANCIALS(105)	4551.17	-1.9	4638.69	4739.48	4577.16	3.71	3.06	2.16	15.59	125.31	2124.19
71 Banks, Retail(11)	6441.97	-2.0	6574.95	6715.33	7037.48	3.96	3.17	2.11	14.93	195.24	2280.41
73 Insurance(16)	2028.64	-0.8	2045.46	2140.31	1875.09	4.26	3.58	2.54	11.55	73.90	1697.76
74 Life Assurance(8)	6995.55	-1.4	7097.01	7106.21	5083.24	2.73	2.36	2.40	19.07	118.11	3129.78
77 Other Financial(25)	3775.31	-5.6	4001.10	4140.19	3341.17	2.96	2.44	2.18	19.35	81.44	2312.93
79 Property(45)	1812.64	+0.4	1806.24	1853.01	1986.56	3.63	3.04	1.61	21.42	37.07	1197.42
80 INVESTMENT TRUSTS(115)	3135.01	-3.2	3237.35	3347.08	3419.52	2.60	2.11	1.17	40.97	47.66	1146.58
89 FTSE All-Share(851)	2393.25	-1.9	2440.84	2497.31	2327.82	3.32	2.81	1.97	19.12	51.23	2183.79
105 FTSE All-Share ex Inv Tr(736)	2404.05	-1.9	2451.03	2507.02	2330.66	3.34	2.83	1.98	18.85	51.86	1128.68
Information Technology	1326.87	-10.1	1476.02	1538.45	-	0.69	0.55	4.00	45.20	5.04	1331.21
FTSE Fledgling	1140.23	-4.0	1187.13	1223.71	1250.51	3.93	3.18	1.34	23.67	24.32	1271.37
FTSE Fledgling ex Inv Tr	1164.29	-4.1	1214.34	1248.45	1258.41	4.17	3.38	1.46	20.49	27.27	1304.31
FTSE AIM	862.8	-4.0	898.6	927.4	1021.9	1.29	1.03	0.24	80.00†	7.36	799.70

■ Hourly movements

	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.10	High/day	Low/day
FTSE 100	5249.4	5122.6	5108.4	5179.7	5199.9	5192.4	5155.2	5208.8	5218.0	5075.7
FTSE 250	4857.1	4610.0	4610.0	4617.2	4630.5	4632.8	4629.5	4615.2	4855.6	4606.9
FTSE 350	2503.0	2448.7	2443.1	2471.8	2481.0	2478.3	2463.4	2483.1	2486.8	2430.7
FTSE SmallCap	2064.90	2048.57	2044.85	2047.31	2051.52	2051.98	2051.87	2047.63	2086.23	2044.84
FTSE All-Share	2425.88	2375.01	2369.68	2396.18	2404.89	2402.42	2388.70	2406.56	2409.91	2358.44

Time of FTSE 100 Day's high: 15:57:45 Day's low: 15:19:00. FTSE 100 1998 High: 6179.0 (20/07/98) Low: 5088.8 (12/01/98)
Time of FTSE All-Share Day's high: 15:58:00 Day's low: 10:17:00. FTSE All-Share 1998 High: 2885.20 (20/07/98) Low: 2389.32 (12/01/98)

Further information is available on http://www.ftse.com

† Sector P/E ratios greater than 80 are not shown. ‡ Values are negative. Name change: Baring Tribune Inv now Tribune Trust (FTSE Fledgling); Insert: Tribune Trust Index (FTSE SmallCap) & (80); Deletion: Tinsley Robor (FTSE Fledgling).

FTSE INTERNATIONAL

TRADING VOLUME

■ Major Stocks yesterday.

	Vol 000's	Closing price	Day's change
3i	715	905½	+5½
AMVESCAP	1,800	441½xd	-8½
ASDA Group	7,400	180½	+12½
Abbey National	4,200	1118	-4
Alliance & Leicester	1,500	831½	-83½
Allied Domecq	2,700	800½	-5½
Assoc. Brit. Foods	400	[illegible]	[illegible]
BAA	1,700	[illegible]	+1
[illegible]	[illegible]	[illegible]	[illegible]

صكذا من الاصل

WORLD STOCK MARKETS

Highs & Lows shown on a 52 week basis

EUROPE

AUSTRIA (Sep 1 / Sch)

BELGIUM/LUXEMBOURG (Sep 1 / Frs.)

CZECH REP (Sep 1 / Koruna)

DENMARK (Sep 1 / Kr)

FINLAND (Sep 1 / Mkk)

FRANCE (Sep 1 / Frs.)

GERMANY (Sep 1 / Dm.)

GREECE (Sep 1 / Drachma)

ITALY (Sep 1 / Lira)

NETHERLANDS (Sep 1 / Fls.)

NORWAY (Sep 1 / Kroner)

POLAND (Sep 1 / Zloty)

PORTUGAL (Sep 1 / Escudo)

SPAIN (Sep 1 / Pts.)

SWEDEN (Sep 1 / Kronor)

SWITZERLAND (Sep 1 / Frs.)

TURKEY (Sep 1 / TK Lira)

PACIFIC

JAPAN (Sep 1 / Yen)

HONG KONG (Sep 1 / H.K.$)

INDONESIA (Sep 1 / Rupiah)

MALAYSIA (Sep 1 / MYR)

NEW ZEALAND (Sep 1 / NZ $)

SINGAPORE (Sep 1 / S$)

AUSTRALIA (Sep 1 / Aus$)

SOUTH KOREA (Sep 1 / Won)

TAIWAN (Sep 1 / TW $)

THAILAND (Sep 1 / Baht)

AMERICAS

CANADA

TORONTO (Sep 1 / Can $)
4 pm close

MONTREAL (Sep 1 / Can $)
4 pm close

MEXICO (Aug 31 / Peso)
closed Sep 1

AFRICA

SOUTH AFRICA (Sep 1 / Rand)

FT/S&P ACTUARIES WORLD INDICES

The FT/S&P Actuaries World Indices are owned by FTSE International Limited, Goldman, Sachs & Co. and Standard & Poor's. The Indices are compiled by FTSE International and Standard & Poor's in conjunction with the Faculty of Actuaries and the Institute of Actuaries.

NATIONAL AND REGIONAL MARKETS Figures in parentheses show number of lines of stock	MONDAY AUGUST 31 1998 US Dollar Index	Day's Change %	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	Local % chg on day	Gross Div. Yield	FRIDAY AUGUST 28 1998 US Dollar Index	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	DOLLAR INDEX 52 week High	52 week Low	Year ago (approx)
Australia (72)	164.32	0.0	145.49	146.65	[illegible]	[illegible]	-1.1	3.93	164.27	146.57	148.77	151.71	[illegible]	238.24	163.86	222.93
Austria (22)	190.43	0.6	168.61	169.95	174.59	174.49	-0.1	1.94	189.25	168.86	171.39	174.78	174.67	253.73	181.60	192.92
Belgium (22)	353.58	-0.2	313.06	315.56	324.17	317.15	[illegible]	2.16	354.15	[illegible]	320.73	327.07	320.08	398.52	234.33	235.83
Brazil (26)	134.47	-4.2	[illegible]	[illegible]	123.29	[illegible]	-4.2	3.97	[illegible]	125.25	127.13	[illegible]	303.93	308.59	134.47	255.55
Canada (119)	167.18	-3.5	148.02	149.20	153.27	189.35	-4.4	2.16	173.30	154.62	156.95	160.05	198.10	248.78	167.18	[illegible]
Denmark (34)	463.95	1.4	410.78	414.06	425.36	423.83	0.2	[illegible]	457.50	408.19	414.32	422.51	[illegible]	[illegible]	375.32	379.78
Finland (28)	394.69	-1.1	[illegible]	352.25	361.86	[illegible]	-1.9	2.07	399.12	[illegible]	361.45	368.60	453.01	506.46	267.59	285.19
France (78)	287.38	-0.2	[illegible]	266.48	263.48	266.42	-1.0	2.36	287.95	256.91	260.77	265.93	269.00	[illegible]	[illegible]	[illegible]
Germany (56)	255.39	-2.6	226.12	227.93	234.15	[illegible]	-3.3	1.36	262.13	233.88	237.39	[illegible]	242.09	325.61	204.89	[illegible]
Greece (37)	249.80	[illegible]	221.17	222.94	229.02	[illegible]	[illegible]	1.73	[illegible]	221.44	224.77	229.21	542.15	333.20	248.19	–
Hong Kong, China (86)	206.40	-7.1	182.75	184.21	189.23	205.35	-7.1	7.44	[illegible]	[illegible]	[illegible]	208.14	[illegible]	527.00	196.64	491.58
Indonesia (26)	28.39	2.5	25.14	25.34	26.03	195.05	[illegible]	3.35	27.70	[illegible]	25.06	25.58	[illegible]	174.67	23.58	136.93
Ireland (16)	429.25	-0.6	380.06	383.10	393.55	425.63	-1.2	2.22	432.01	385.45	391.24	398.97	430.79	580.44	359.80	[illegible]
Italy (54)	149.55	-1.1	132.41	133.47	137.11	[illegible]	-1.8	[illegible]	151.23	[illegible]	139.96	139.66	198.26	184.49	99.14	99.14
Japan (480)	80.97	3.3	71.69	72.27	74.24	[illegible]	[illegible]	[illegible]	78.40	69.95	71.00	72.41	71.00	125.36	78.40	[illegible]
Malaysia (106)	77.92	0.3	68.99	69.55	71.44	125.61	0.0	[illegible]	77.65	69.28	70.32	71.71	125.61	364.86	77.65	318.61
Mexico (29)	877.26	-3.7	[illegible]	782.94	804.29	9562.28	-4.3	2.85	[illegible]	813.09	825.31	841.62	9988.73	1901.98	877.26	1684.13
Netherlands (27)	461.70	[illegible]	408.79	412.06	423.80	[illegible]	[illegible]	[illegible]	[illegible]	409.98	416.14	424.37	420.29	562.98	385.58	388.77
New Zealand (14)	51.09	-0.9	[illegible]	[illegible]	46.84	54.74	-1.4	[illegible]	51.56	46.00	46.69	47.61	55.53	85.87	51.09	87.35
Norway (38)	218.87	[illegible]	193.79	[illegible]	200.67	233.48	-0.8	2.68	217.69	[illegible]	197.15	201.04	235.25	374.64	211.31	323.71
Philippines (22)	46.68	[illegible]	41.39	41.66	42.80	101.90	-0.2	1.60	46.35	41.35	41.96	42.81	102.10	[illegible]	46.35	[illegible]
Portugal (18)	239.00	1.1	211.61	[illegible]	219.12	295.49	0.1	1.10	[illegible]	[illegible]	[illegible]	218.33	295.19	299.39	235.61	–
Singapore (41)	108.40	-5.0	95.97	[illegible]	99.38	88.72	-5.1	3.41	114.06	101.77	[illegible]	105.34	[illegible]	331.17	108.40	299.45
South Africa (39)	153.12	1.0	135.57	136.65	[illegible]	215.04	0.3	4.18	[illegible]	[illegible]	137.25	139.96	214.32	346.20	[illegible]	337.59
Spain (31)	314.90	-0.8	278.81	281.04	288.71	[illegible]	-1.9	[illegible]	317.44	283.22	287.48	293.16	364.21	417.73	238.28	242.75
Sweden (49)	[illegible]	0.4	[illegible]	435.33	[illegible]	584.05	-0.3	2.01	485.99	433.61	440.13	[illegible]	585.75	628.19	439.98	476.96
Switzerland (28)	367.35	-0.7	325.25	327.85	336.79	329.38	-1.6	1.27	369.98	330.10	335.06	341.69	[illegible]	439.48	285.85	285.85
Thailand (37)	8.47	-3.1	7.50	7.56	7.77	13.77	-3.6	6.85	8.74	7.80	7.91	8.07	14.29	45.52	8.47	39.00
United Kingdom (210)	342.82	0.8	303.53	305.96	314.31	303.53	[illegible]	3.27	340.20	303.53	308.19	[illegible]	303.53	[illegible]	303.41	307.66
USA (624)	390.83	-6.8	346.04	348.81	358.32	390.83	-6.8	1.66	419.18	374.00	379.62	[illegible]	419.18	485.88	358.31	386.27
Americas (798)	348.44	-6.6	308.51	310.98	319.46	295.69	-6.7	1.70	[illegible]	332.92	[illegible]	[illegible]	[illegible]	437.03	[illegible]	[illegible]
Europe (748)	319.02	[illegible]	282.46	284.72	292.48	297.73	-1.0	2.29	319.79	285.32	289.61	295.34	300.79	386.24	265.25	265.25
Eurobloc (352)	91.53	-0.9	81.04	81.69	83.92	90.79	-1.7	[illegible]	92.37	82.41	83.65	85.30	92.32	113.28	91.53	–
Nordic (149)	438.33	0.3	386.33	389.42	400.04	[illegible]	-0.5	1.98	435.14	388.24	394.08	401.86	452.96	555.97	388.51	[illegible]
Pacific Basin (984)	84.96	[illegible]	75.22	75.82	77.89	76.55	0.7	1.90	83.29	74.31	75.43	76.92	76.02	142.11	83.29	137.81
Euro-Pacific (1612)	182.50	[illegible]	161.59	162.88	167.32	159.90	-0.5	[illegible]	181.88	162.27	164.71	167.97	160.81	220.19	[illegible]	190.88
North America (743)	375.88	-6.7	[illegible]	[illegible]	344.59	377.06	-6.7	1.68	402.63	359.23	364.63	371.84	404.05	469.20	349.06	356.69
Europe Ex. UK (538)	296.59	-0.7	[illegible]	264.70	[illegible]	285.73	-1.5	1.79	298.79	266.59	[illegible]	275.94	[illegible]	366.32	236.79	236.79
Europe Ex. Eurobloc (396)	87.86	0.5	77.79	[illegible]	[illegible]	87.41	-0.3	2.70	87.46	78.03	79.21	80.77	87.71	103.93	87.46	–
Europe Ex. UK Ex. Eurobloc (186)	88.85	-0.2	78.76	79.39	[illegible]	88.54	-1.0	[illegible]	89.13	79.52	80.72	82.31	89.47	109.21	88.01	–
Pacific Ex. Japan (384)	129.63	-3.0	114.78	115.70	118.86	140.61	[illegible]	5.30	133.80	119.20	120.99	123.39	145.73	287.15	129.63	267.65
World Ex. Eurobloc (2087)	83.83	-4.0	[illegible]	[illegible]	76.85	[illegible]	-4.4	1.95	87.33	77.92	79.09	80.65	88.82	103.16	83.83	–
World Ex. US (1825)	181.30	[illegible]	160.70	161.98	166.40	163.54	-0.8	2.21	181.25	161.72	164.15	167.39	164.79	[illegible]	175.30	[illegible]
World Ex. UK (2239)	240.18	[illegible]	212.86	214.38	220.20	[illegible]	-4.4	1.78	250.21	223.24	226.60	231.08	[illegible]	298.02	[illegible]	244.24
World Ex. Japan (1969)	332.34	-4.2	294.25	296.61	304.70	327.07	-4.5	2.09	346.85	309.46	314.11	320.32	342.48	411.23	309.33	314.27
The World Index (2449)	248.87	-3.5	220.34	222.11	228.16	229.13	-3.9	1.93	257.87	230.08	233.53	238.15	228.48	306.58	241.30	249.68

Emerging markets: IFC investable indices

Dollar terms

NEW YORK STOCK EXCHANGE PRICES

4 pm close September 1

- A -

1998 High	Low	Stock	Div	Yld %	P/E	Vol 100s	High	Low	Close Quote	Chng Prev. Close
[illegible]	[illegible]	AAR x	0.34	1.5	19	629	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	AMP x	1.08	2.8	20	11918	38	35	38	[illegible]
[illegible]	[illegible]	AMR			7	22059	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	ASA	0.80	5.3	9	1217	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	AbbotL	0.60	1.5	28	34158	[illegible]	[illegible]	[illegible]	+1

- X - Y - Z -

1998 High	Low	Stock	Div	Yld %	P/E	Vol 100s	High	Low	Close Quote	Chng Prev. Close
[illegible]	[illegible]	Xerox	1.44	1.6	78	17930	[illegible]	85	[illegible]	[illegible]
[illegible]	[illegible]	Xtra Corp			18	399	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Yankee Egy	1.38	5.8	19	124	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	York Int	0.48	1.4	29	627	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Zapata	0.28	2.4	3	2088	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Zenith Nat	1.00	4.2	14	32	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Zenix Inc	0.70	11.6		430	6	[illegible]	6	[illegible]
[illegible]	[illegible]	ZweigFd	1.24	12.4		2158	10	[illegible]	10	+1
[illegible]	[illegible]	Zweig Tot	0.84	9.9		1807	[illegible]	[illegible]	[illegible]	[illegible]

Price data supplied by Extel, part of FT Information

Yearly highs and lows for NYSE reflect the period from Jan 1 1998. Unless otherwise noted, rates of dividend are annual disbursements based on the latest declaration. Volume figures are unofficial.

d-new yearly low. P/E price-earnings ratio. vol- volume. u-new yearly high. x-ex-dividend or ex-rights. yld-yield. z-sales in full.

Dealings suspended.

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Sector		SETT 01-09-1998	Close 01-09-1998	Previous 31-08-1998	Change on day	% Change	1998 HIGH	1998 LOW
Financials	USD	1894.87	1891.85	1921.67	-29.82	-1.55	2451.80	1364.42
IN-FIN	DEM	2316.41	2307.00	2370.64	-63.64	-2.68	3067.15	1641.15
Non-durable goods	USD	1614.61	1622.26	1607.79	+14.47	+0.90	1780.72	1163.48
IN-GOODS	DEM	1974.63	1978.25	1983.43	-5.18	-0.26	2196.63	1398.43
Oils	USD	1164.21	1158.81	I1179.77	-20.96	-1.77	1533.96	1102.90
IN-OIL	DEM	1423.88	1413.10	I1455.40	-42.30	-2.90	2027.16	1416.12
Pharma-chemicals	USD	1388.14	1362.81	1378.58	-15.77	-1.14	1688.68	1227.09
IN-PHARMA	DEM	1678.76	1661.87	1700.67	-38.80	-2.28	2315.51	1475.94
Telecoms	USD	2120.79	2111.38	2156.29	-44.90	-2.08	2437.22	2046.51
IN-TELCO	DEM	2603.07	2574.70	2660.06	-85.36	-3.20	3672.36	2556.17

Further information about the INSECTS and constituents are available for download on our web-site HTTP://WWW.EURO-INSECTS.COM and further information about EuroBench is on HTTP://WWW.EUROBENCH.COM. A free daily email service can also be subscribed to on the web. For hard copy information please call London (+ 44 171 336 7888) or Brussels (+32 2 509 94 60).

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GLOBAL EQUITY MARKETS

US INDICES

Dow Jones	Aug 31	Aug 28	Aug 27	1998 High	1998 Low	Since compilation High	Since compilation Low
Industrials	7539.07	8051.68	8165.99	9337.97 (17/7)	7539.07 (31/8)	9337.97 (17/7/98)	41.22 (8/7/32)
Home Bonds	104.88	105.83	105.16	105.48 (15/1)	104.42 (11/5)	105.48 (15/1/98)	54.99 (1/10/81)
Transport	2732.51	2827.84	2830.78	3686.02 (16/4)	2732.51 (31/8)	3686.02 (16/4/98)	13.23 (8/7/32)
Utilities	278.20	283.74	281.28	295.40 (6/7)	262.66 (5/1)	295.40 (6/7/98)	16.53 (8/7/32)

DJ Ind. Day's high 8143.00 (8301.88) Low 7517.78 (7951.27) (Theoretical†)
Day's high 8065.43 (8244.58) Low 7539.07 (8011.32) (Actual§)

Standard and Poors	Aug 31	Aug 28	Aug 27	1998 High	1998 Low	Since compilation High	Since compilation Low
Composite‡	957.28	1027.25	1042.51	1186.75 (17/7)	927.69 (9/1)	1186.75 (17/7/98)	4.40 (1/6/32)
Industrials¶	1134.73	1222.42	1239.69	1389.48 (17/7)	1077.40 (9/1)	1389.48 (17/7/98)	3.52 (30/6/32)
Financial¶	105.04	112.89	114.86	147.69 (14/7)	105.04 (31/8)	147.69 (14/7/98)	7.18 (4/8/74)
Others							
NYSE Comp.	480.60	512.12	518.82	600.75 (17/7)	480.68 (31/8)	600.75 (17/7/98)	4.64 (25/4/42)
Amex Comp	585.07	602.55	608.99	753.87 (22/4)	585.07 (31/8)	753.87 (22/4/98)	524.20 (10/7/95)
NASDAQ Comp	1499.25	1639.68	1686.41	2014.25 (20/7)	1499.25 (31/8)	2014.25 (20/7/98)	54.87 (3/10/74)
Russell 2000	337.95	358.54	365.10	491.41 (21/4)	337.95 (31/8)	491.41 (21/4/98)	123.36 (7/12/93)

RATIOS

	Aug 28	Aug 21	Aug 14	Year ago
Dow Jones Ind. Div. Yield	1.84	1.44	1.76	1.71
	Aug 26	Aug 19	Aug 12	Year ago
S & P Ind. Div. yield	1.33	1.32	1.34	1.54
S & P Ind. P/E ratio	30.83	31.03	30.57	25.75

US DATA

MARKET ACTIVITY

Volume (million)	Aug 31	Aug 28	Aug 27
NYSE	917.578	938.620	938.620
Amex	49.527	53.444	53.444
NASDAQ	1999.691	1910.27	923.237

NYSE	Aug 31	Aug 28	Aug 27
Issues Traded	3,545	3,535	3,547
Rises	400	848	381
Falls	2,872	2,195	1,888
Unchanged	273	430	380
New Highs	20	15	14
New Lows	1,289	837	1,01

NYSE TRADING ACTIVITY — Volume : 917,578,000

ACTIVE STOCKS

Monday	Stocks traded	Close price	Day's change
Compaq	13,573,400	27⅞	−2⅛
AmOnLine	10,250,200	81⅝	−13⅝
LucentTch	9,828,700	70⅝	−10⅝
PhMorr	9,142,700	41⅝	−1⅞
Texas	8,803,900	44⅝	−3⅝
Disney	7,962,800	27¾	−3¼
GenElec	7,730,200	80	−5⅞
AT&T	7,157,400	50⅝	−5⅝
Coca C	7,034,400	65⅝	−7¼
Chase	7,037,800	53	−5⅝

BIGGEST MOVERS

Monday	Close price	Day's change	Day's chge %
Ups			
Giglo GR	17¼	+⅞	+5.8
TDK Corp A	69⅝	+3	+4.6
Downs			
Learner Cp	18⅝	−5⅞	−23.1
BaytnH	38	−7⅞	−18.1
Pohl	28⅝	−6⅜	−18.0
AmnEl	13⅝	−2⅝	−18.0
Unisys	17⅞	−3⅝	−17.1
CpDomF	87⅛	−16⅞	−16.2

NASDAQ TRADING ACTIVITY — Volume :1,999,691,000

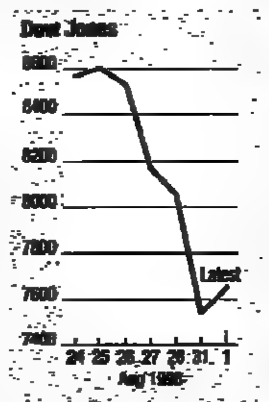
ACTIVE STOCKS

Monday	Stocks traded	Close price	Day's change
DellComp	47,044,300	100	−18⅝
CiscoSys	35,[illegible]	82⅝	−12¼
Micsft	31,314,800	95⅞	−9⅛
Intel	25,143,000	71¼	−5⅜
WcldCm	18,898,200	41⅝	−5⅝
Oracle	9,738,000	19⅞	−1⅝
Yahoo	9,282,200	66⅝	−18¼
AscendCom	8,063,100	35	−8
AppleC	7,815,400	31	−3⅛
PeopleS	7,515,600	28⅝	+⅝

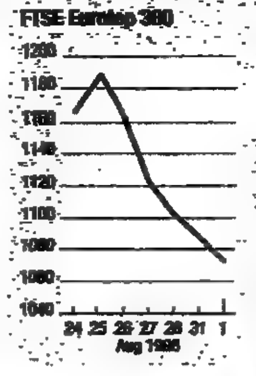
BIGGEST MOVERS

Monday	Close price	Day's change	Day's chge %
Ups			
Allied & C	16⅝	+⅝	+8.3
MedClyBc	35	+2⅝	+8.7
Downs			
Backw	21⅞	−8⅝	[illegible]
InMktgR	19⅝	−7⅝	−27.7
Lycos	21⅝	−8	−26.8
Ocular	17⅝	−6	−25.8
Wely.Inc	16⅝	−5⅝	−24.4
Netscp	17⅞	−5⅞	−24.2

Dow Jones



FTSE Eurotop 300



JAPAN

	Sep 1	Aug 31	Aug 28	1998 High	1998 Low	Since compilation High	Since compilation Low
Nikkei 225	14388.63	14107.89	13915.63	17264.34	13915.63	38915.9	85.25

Day's high: 14389.83. Day's low: 13864.74

TOKYO TRADING ACTIVITY — Volume : 444,000,000

ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Sakura Bank	32,128,000	274	+26
LTCB	10,625,000	59	
Nip Steel Cp	8,715,000	228	−3
Bk Tk-Mitsbs	7,944,000	1020	+22
Fuji Bank	6,927,000	485	+6
Toshiba Cp	6,413,000	521	+14
Sumo Mtl Ind	6,071,000	178	−1
Mitsui T&B	6,008,000	187	+7
Nomura Secs	5,550,000	1250	−11
Sanwa Bank	5,452,000	829	+21

BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Chuo Paper	78	+12	+18.2
Zenchiku	320	+45	+16.4
Shota Nikko	230	+30	+15
Daiwa Dnskl	252	+31	+14
Downs			
Odkyu Rl Est	201	−38	−15.9
Tokyu Tour	150	−25	−14.3
Sato Shoji	331	−49	−12.9
Hokku Elct	310	−45	−12.7

FRANCE

	Sep 1	Aug 31	Aug 28	1998 High	1998 Low	Since compilation High	Since compilation Low
CAC 40	3646.29	3651.85	3708.97	4388.48	2362.54	4388.48	984.61

Day's high: 3651.78. Day's low: 3518.25.

PARIS TRADING ACTIVITY — Volume : 852,287,030

ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Alctel	2,174,256	830	−16
FrTele	2,099,144	457	+23.5
Axa	1,918,781	648	−34
Usinor	1,889,240	63.4	+1
Alstom	1,761,997	132.5	−5.5
Rhnpls	1,524,526	250	−13.8
BNP	1,427,855	378	−12.5
RhonPA	1,324,616	279.5	−4.6
Paribas	1,280,102	482	−15.5
EurDis	1,239,305	10.1	+0.9

BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
EurDis	10.1	+0.9	+9.8
EriBSay	1180	+84	+7.7
StGobn	897	+49	+5.8
FrTele	457	+23.5	+5.4
Downs			
Seb SA	518	−98	−15.6
CPR	388.5	−63.5	−14.1
Eifage	420	−39.4	−8.6
Dxy ED	2538	−202	−7.4

GERMANY

	Sep 1	Aug 31	Aug 28	1998 High	1998 Low	Since compilation High	Since compilation Low
DAX	4781.81	4823.89	4893.54	6171.43	4087.28	6171.43	931.18

Day's high: 4808.01. Day's low: 4673.21.

FRANKFURT TRADING ACTIVITY — Volume : (a)

ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Ill Fashion	8,648,200	3.7	+0.5
Bayer	1,433,886	66.9	+0.1
Commzbank	1,079,665	51	
Dmlr Benz	998,091	156	−3
Deut.Bank	930,180	111.2	+1.5
Deut.Tkom	920,453	46.2	−0.4
DT Lufthansa	855,495	41.8	−1.7
BASF	825,030	70.5	
Veba	658,174	93.3	+4.42
Hoechst	625,577	68	−3.2

BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Dycom	92	+4.5	+5.1
Veba	93.3	+4.42	+5.0
B'sdorf	98	+4	+4.3
BayerV	139	+4.5	+3.3
Downs			
Porsche	3940	−480	−12.1
FagKug	21.1	−2.4	−10.2
BMW	1202	−108	−8.2
BMWPf	740	−60	−7.5

UK

	Sep 1	Aug 31	Aug 28	1998 High	1998 Low	Since compilation High	Since compilation Low
FTSE 100	5169.1	closed	5249.4	6179.00	5068.80	6179	986.9

Day's high: 5249.8. Day's low: 5075.7

LONDON TRADING ACTIVITY — Volume : 800,908,000

ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Vodafone	26,669,320	741	−92
Shell T&T	21,546,230	327	+16½
MFI Frnts	17,958,250	40	+1
BP	15,805,370	740½	−13
Marks & Sp	14,016,240	541	+25
BT	13,046,340	796	−14
Lloyds TSB	12,947,960	768½	−3½
Smkline Bchm	11,622,160	683½	−41½
Centrica	11,364,700	90½	−2
Tesco	11,070,980	173	+5

BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Rubicon	225	+65	+40.6
CreataCam	35½	+5	+16.4
Desire Pet	142½	+15	+11.8
Downs			
Aviation Oil	11½	−3½	−23.3
Waech Hldg	180	−50	−21.8
Network Tch	51½	−13	−20.2
Just Grp	1	−¼	−20
Rodime	1	−¼	−20

INDEX FUTURES

S&P 500	Open	Latest	Change	High	Low	Est. vol.	Open int.
Sep	954.60	969.00	+15.00	981.00	953.00	227,734	358,912
Dec	–	983.80	– –	–	–	18,821	40,520
Nikkei 225	**Open**	**Sett price**	**Change**	**High**	**Low**	**Est. vol.**	**Open int.**
Sep	13590.0	14410.0	+340.0	14430.0	13590.0	49,816	203,936
Dec	13650.0	14380.00	+420.0	14380.0	13550.0	6,054	51,497

Open interest figures for previous day.

CAC-40 (200 x index)	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Sep	3485.0	3645.5	−32.3	3983.0	3485.0	120,294	185,031
Oct	3555.0	3655.0	−5.8	3627.5	3555.0	17	1,140
DAX							
Sep	4725.0	4852.0	+34.0	4853.0	4645.0	52,144	94,840
Dec	4766.0	4884.5	+14.5	4876.0	4585.5	1,073	4,306

OMX	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Sep	642.00	644.00	−18.00	650.00	625.00	42,413	134,850
Oct	647.00	647.00	−20.50	647.00	647.00	50	51
SOFFEX							
Sep	6425.0	6600.0	−30.00	6670.0	6410.0	13,864	29,680

WORLD MARKETS AT A GLANCE

Country	Index	Sep 1	Aug 31	Aug 28	1998 High	1998 Low	Yield	P/E
Argentina	General	14022.66	14604.83	14804.77	23685.47 23/3	14604.83 31/8	4.35	12.1
Australia	All Ordinaries	2459.2	2480.7	2516.9	2881.40 18/4	2468.20 1/8	3.57	17.8
	All Mining	504.4	499.8	507.1	713.10 23/4	469.80 31/8		

Pulled back from early sharp falls as local dollar and bonds showed solid gains. Falls beat rises by 9 to 4.

Country	Index	Sep 1	Aug 31	Aug 28	1998 High	1998 Low	Yield	P/E
Hungary	Bux	5268.55	5232.47	5187.71	[illegible] 23/4	5187.71 28/8	na	na

Ended modestly higher with 19 shares up and 19 lower.

Country	Index	Sep 1	Aug 31	Aug 28	1998 High	1998 Low	Yield	P/E
India	BSE Sens.	2892.55	2933.85	2898.16	4280.36 21/4	2892.55 1/9		
	CMIE 500	574.82	580.53	587.48	865.82 21/4	573.82 18/8	na	na

Ended higher after a volatile session.

Country	Index	Sep 1	Aug 31	Aug 28	1998 High	1998 Low	Yield	P/E
Portugal	BVL 30	4705.96	4763.17	4779.22	6176.88 22/4	3879.27 2/1	2.07	26.7
	PSI 20	10832.51	10753.79	10809.26	14292.59 22/4	8031.84 2/1		
Russia	RTS	65.66	65.82	(s)	411.81 5/1	63.28 28/8	na	na

Ended little changed in minimal volume.

[illegible]

THE NASDAQ STOCK MARKET

4 pm close September 1

[illegible]

THE NASDAQ STOCK MARKET

[illegible]

AMEX PRICES

4 pm close September 1

[illegible]

EASDAQ

The EASDAQ All Share Index (EASI) for 1st September: 700.91 down 7.25% Day's high: 745.17 Day's low: 687.81

[illegible]

STOCK MARKETS

Bourses left reeling in Wall Street's wake

WORLD OVERVIEW

It was the morning after the night before for world markets yesterday, and share prices staggered around with a hangover for most of the day, *writes Philip Coggan.*

The impact of Monday's late 512-point decline in the Dow Jones Industrial Average on Wall Street, which wiped out all the gains US investors had made this year, reverberated throughout the day.

Asian markets wobbled in early trading but then recovered, notably in Tokyo, which was helped by a stronger yen. Malaysia, the latest Asian country to move away from free financial markets, was the big exception; the announcement of capital controls sent shares down 13 per cent.

European bourses fell heavily at the start but then spent much of the day reacting to an extremely volatile Wall Street. Electronic trading of the S&P futures indicated a strong start and the Dow duly gained 100 points in the first few minutes of trading.

That rally quickly evaporated, turning into an 100-point loss, before the Dow bounced again to be 100 points ahead by the time European markets closed.

Some European bourses have now fallen more than 20 per cent since mid-July, making the decline officially a bear market rather than a correction. But has the sell-off been overdone or can the last rites finally be read for the long bull market?

Edmond Warner, the global strategist at BT Alex Brown who has been bearish for some time, said the ratio between bond yields and the prospective earnings yield now made shares look fair value. "There is the caveat that earnings forecasts are being revised down, but this is still a dramatic shift from a month ago, when equities looked as much as 25 per cent overvalued."

Mr Warner added that yesterday was "probably the first day throughout the correction when you should be looking to buy the market. It doesn't necessarily mean that the correction is over, but if you're an institutional investor, you're never going to get all your money in at the bottom."

He said Europe was suffering from outperformance earlier this year. "A lot of the equity gains could yet be unwound if people panic. While we like Europe in the long term, we think Wall Street will outperform in the short term."

George Hodgson, European strategist at ABN Amro, thought that "over the past 72 hours, the stock markets have started to over-react. They have ignored the good news in the form of lower bond yields and commodity prices."

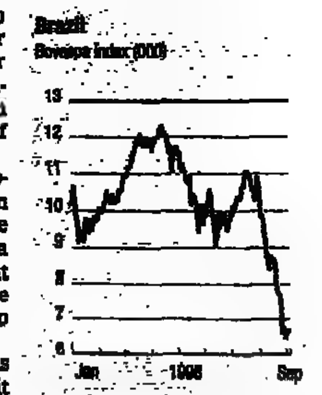
"What we may have seen," added Mr Hodgson, "is vigorous selling from aggressive investors, such as hedge funds. As the dust settles, we may see the big institutions come in and exploit valuations that look much more reasonable. For Europe we see economic growth of 2.75 per cent and inflation around 2 per cent, which is a good combination."

Ian Harwood, global economist at Dresdner Kleinwort Benson, is less upbeat. "Wall Street's fall is a belated realisation that earnings growth is not going to live up to expectations," he said.

"European fundamentals look fine. But there is a risk of infection from the US, especially if US investors decide to repatriate funds to meet losses. And if the dollar becomes weak, that would be bad news for European corporate earnings. We still think bonds and cash are the best investments to have."

EMERGING MARKET FOCUS

Little rest for dizzy Bovespa



Traders on the São Paulo stock exchange hoped for some respite this week after days of dizzying swings, culminating last Thursday with a fall in the Bovespa index of almost 10 per cent.

They were quickly disappointed on Monday when prices suffered a fall of more than 4 per cent, to produce a decline of almost 39 per cent in August. Yesterday the index opened firmer, up 68 to 6,535.

The Brazilian market has been among the hardest hit by the Russian crisis. In Latin America its volatility has been beaten only by Venezuela, which has its own problems.

There are two main reasons. One is Brazil's liquidity. As one of the biggest emerging bourses, São Paulo offers the easiest point of escape for investors stung in other markets. The other is the perceived risk of a devaluation or other economic shock treatment.

Ministers insist there will be no change to monetary policy, which consists of a gradual reduction of interest rates and a crawling devaluation of the real. They also rule out a repeat of the measures introduced last October at the height of the Asian crisis, when base interest rates were doubled to 40 per cent a year and stiff cuts made in public spending to defend the currency.

The government has also made much of the differences between Brazil and Russia, although the countries do have some problems in common. Brazil's budget deficit has reached 7 per cent of gross domestic product, and its current account deficit is almost as alarming.

But Brazil has made many of the structural reforms needed to underpin stability, bringing inflation into single digits and pressing ahead with privatisation. Democratic institutions are also well established.

Nevertheless, stability continues to depend on foreign finance, and that is what worries investors.

Rodrigo Fiaes, equities strategist at Banco Icatu in Rio de Janeiro, says Brazil must attract up to $70bn a year to cover the current account deficit, pay international debts and finance trade.

About $9bn left Brazil in August on foreign exchange markets. The government says outflows have been covered by direct investment, particularly from privatisation, and foreign reserves are steady at about $69bn. But it is hard to see how this can be sustained.

"If they can't square the circle, they will have to react by raising interest rates, by producing slower growth or recession next year, or by devaluing the currency," Mr Fiaes says.

The chance of any drastic action is reduced before upcoming elections. But the threat of any move later on will keep investors from Brazil for as long as the Russian crisis continues.

"Investors are very nervous," says Mr Fiaes. "They are trying to reduce exposure to the absolute minimum. Nobody is trying to time the market and come in at the bottom because nobody thinks we're at the bottom yet."

Jonathan Wheatley

Dow volatile as investors sift wreckage

AMERICAS

Bargain-hunting was mixed with caution in morning trading on Wall Street as investors picked through the wreckage of Monday's severe shakeout, *writes John Labate in New York.*

The market opened with a burst of buying, sending the Dow Jones Industrial Average up more than 100 points before the sellers stepped in to send the market down by almost the same amount.

By early afternoon, however, the momentum remained positive in most sectors and the volume of trading was on track to hit a record by the closing bell.

Investors focused mostly on large caps. The Dow was up 229.14 or 3 per cent to 7,768.21 while the Standard & Poor's 500 index had gained 29.43 to 986.71. The Nasdaq composite rose 50.85 to 1,550.10.

But many traders expected stocks to revisit recent lows before stabilising. "Typically this bottoming-out process involves a rally followed by a test," said Greg Smith, chief market strategist at Prudential Securities in New York.

With Monday's market collapse sending the main indices 19 to 25 per cent below recent highs, several prominent stock analysts, including Mr Smith, recommended that investors should lower their exposures in bonds and raise their exposures to equities.

As US shares pushed higher, Treasuries lost ground after nearly two weeks of gains.

Among Dow components, Walt Disney climbed $2⅝ or more than 10 per cent to $30¼. Boeing, which announced a share buyback programme late on Monday, gained $2⅛ or 7 per cent to $33¾. PaineWebber raised the stock to an "attractive" rating.

Chrysler proved another strong performer, up $3¾ to $48¾, a rise of more than 8 per cent. Retailing shares were also in favour. Borders gained 14 per cent to $21⅞ and Dayton Hudson almost 16 per cent or $5¾ to $41¾.

Investors seemed to be rethinking their strategies with internet shares. Most were up on the day, but some of the sector's higher-flying names were left behind. Amazon.com plunged another 8 per cent to $76¾ and America Online fell $¾ to $81⅛.

TORONTO moved higher after a stormy start. By the noon count, the 300 composite index was up 65.39 at 5,596.10 following good demand for some selected industrials.

Northern Telecom rose C$2.75 to C$78 and BCE gained 90 cents to C$51.50. Alcan Aluminium added C$1.35 at C$30.90 while Seagram advanced by a similar amount to C$50.35.

Another solid opening for bullion lifted golds. Among leading producers, Barrick rose 55 cents to C$20.90 and Placer Dome jumped 9 per cent, adding C$1.25 at C$13.70.

Frankfurt recovers big losses

EUROPE

Shares in FRANKFURT closed higher after a volatile session in which the Xetra Dax index picked up from a low of 4,647.88 to end 44.62 better at a day's high of 4,855.90.

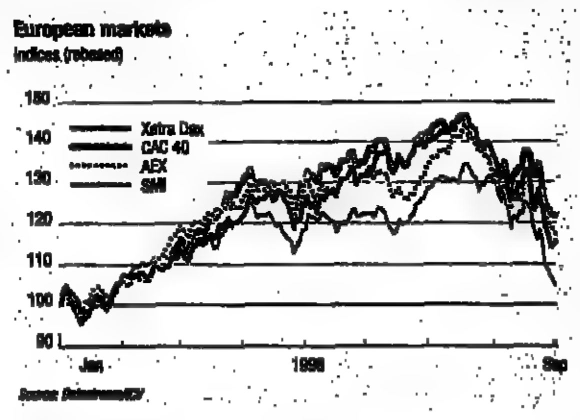
In motor stocks, Volkswagen closed DM10.30 higher at DM135 after the company forecast an 11 per cent rise in 1998 commercial vehicle sales. BMW, by contrast, tumbled DM79 to DM1,225, hurt by a stronger D-Mark.

Banks put in a mostly better showing on the view that they were oversold on Russian worries. Commerzbank put on DM2 to DM52.20 and Deutsche Bank rose DM4.60 to DM113.35.

HypoVereinsbank put on DM2.50 to DM137 as the merger of Hypo Bank and Vereinsbank was officially completed, creating Germany's second largest bank.

THE DAY'S CHANGES

	% Change
Helsinki	-3.8
Stockholm	-3.0
Milan	-2.6
Amsterdam	-1.7
Zurich	-1.4
Madrid	-0.8
Paris	-0.2
Frankfurt	+0.9



MOSCOW closed flat, moving just off record lows in minimal volume as the economic crisis continued. The RTS index edged 0.05 higher to 65.66, unimpressed by the arrival of President Bill Clinton in Moscow.

PARIS ended little changed after a volatile, high-volume session. The CAC 40 index, which sank to 3,516.25 at one stage, closed only 5.55 lower at 3,646.29 in volume of 25.4m shares.

Software leader Cap Gemini was the major casualty, falling 7.2 per cent or FFr67 to FFr863. Financials stayed weak. Axa-UAP shed FFr34 to FFr646 while falls of more than 3 per cent were commonplace among banks. BNP came off FFr12.50 at FFr378.

Foods, retailers and utilities were among the more defensive areas of the market. Eridania Beghin rose FFr84 or 7.7 per cent to FFr1,180. France Telecom gained FFr23.50 to FFr457.

Appliance group SEB tumbled FFr96 or 15.6 per cent to FFr519 after issuing a disappointing results statement. Its sector rival Moulinex came off FFr5 to FFr112 in sympathy.

ZURICH was cushioned from the full effects of the pull-back by the hefty losses it had already posted in recent sessions. The SMI index lost 94.9 to 6,584.5 extending to almost 22 per cent the market's decline from its July 21 peak.

Banking shares continued lower on worries about exposure in Russia, with UBS down SFr9 at SFr438 and CS Group falling SFr12.50 to SFr241.

Zurich Insurance rose SFr10 to SFr800, but Swiss Re was down SFr41 at SFr3,160.

ABB, however, put on SFr27 to SFr1,712, prompting speculation that Martin Ebner's BZ Bank might again be buying the stock. Mr Ebner declined to comment on the rumours although he did confirm statements attributed to him in the local press that the time was right to start buying industrials.

AMSTERDAM closed off the day's lows with the AEX index down 18.39 at 1,068.24 in moderate turnover. The low point was 1,039.71.

Philips, hit by US-driven selling, led the way down. The shares fell Fl 7.30 to Fl 122.10 for a two-day decline of 8.9 per cent. DSM came off Fl 9.80 at Fl 165.40 and Buhrmann Fl 2.10 at Fl 42.90. Royal Dutch, buoyed lately by merger talk, shed Fl 1.90 to Fl 96.30.

KLM was a rare upside feature adding 40 cents at Fl 68.40 and Hoogovens again came in for support, gaining Fl 1.60 to Fl 76.20.

MADRID pared its mid-session losses to close with the general index off a modest 5.51 at 731.54. Telefónica, which turned in solid six-month results, ended Pta40 lower at Pta5,690. The banks had an especially volatile session. Santander ended off Pta50 at Pta2,750 after trading between Pta2,815 and Pta2,650 over the day.

WARSAW fell 6.5 per cent to its lowest level since February 1996 as domestic selling continued to depress the market. But a firming zloty signalled that foreign investors had largely completed their sell-off on the Russian crisis. The Wig index closed 752.2 lower at 10,883.7.

ISTANBUL, down almost 11 per cent early in the day, rebounded strongly from its lows to close 4.2 easier in a recovery led by banks and other blue chips. The IMKB National 100 index finished 110.58 weaker at 2,524.56.

ATHENS also managed a recovery from its worst levels to close 3.8 per cent down but analysts cautioned there was likely to be further uncertainty and volatility in coming sessions. The general index, down 7.1 per cent early in the day, lost 82.9 or 3.8 per cent to 2,092.61.

Written and edited by Michael Morgan, Jeffrey Brown, Peter Hall and Paul Gregan

Buenos Aires races up

Shares in BUENOS AIRES raced higher around mid-session, invigorated by renewed strength in US stocks.

The Merval index was 11.87 or 3.3 per cent better at 370.36, having posted a loss of almost 40 per cent in August.

SANTIAGO climbed 1.7 per cent at midsession.

Analysts had expected the early strength on bargain-hunting, but they cautioned that the recovery was fragile, and could run out of steam later in the day as the economic and political turmoil in Russia once again soured the mood. The IPSA index was 1.07 higher at 65.54.

CARACAS proved to be an exception to the better tone with the IBC index registering a fall of 76.69 or 2.6 per cent at 2,827.33, having closed broadly flat in shallow trade on Monday.

MEXICO CITY was closed for the state-of-the-nation address by President Ernesto Zedillo.

Jo'burg rallies but ends lower

SOUTH AFRICA

Johannesburg clawed its way back from early lows on short-covering by futures operators and as Wall Street looked set for a rebound. But the overall index still finished with a loss of 116.4 or 2.4 per cent at 4,807.0 as industrials dropped 147.7 or 2.5 per cent to 5,706.9.

Analysts noted the overall index had collapsed about 40 per cent since April, taking the market back to levels last seen at the all-race elections in 1994 when many feared the country faced civil war.

Golds continued to draw support from bullion's continuing bounce off last week's 19-year lows. The gold index picked up 27.3 or 3.5 per cent to end at 810.9.

Kuala Lumpur plummets 13%

ASIA PACIFIC

News of draconian capital controls sent KUALA LUMPUR crashing 13.3 per cent to a 10-year low, with the composite index ending off 40.21 at 262.70 after a session low of 261.33.

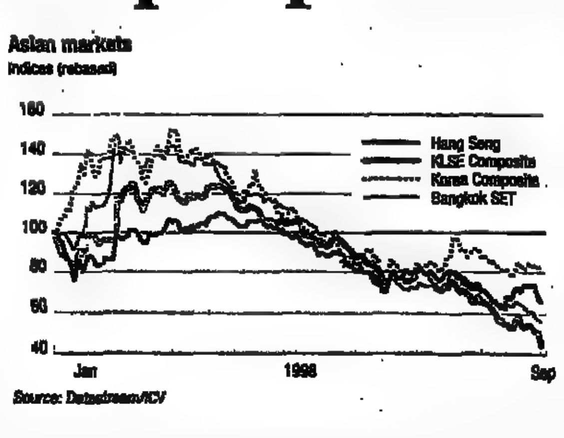
Brokers said the controls had created extreme investor confusion. A comment by the prime minister that investors, local and foreign, would be locked in for 12 months, added to the uncertainty.

Among blue chips, Tenaga Nasional fell 10 cents to M$2.06 and Telekom Malaysia M$1.06 to M$4.34.

TOKYO brushed off initial concerns about the collapse in the Russian and US markets, reversing big losses in early trading to push higher for the second day running, *writes Alexandra Harney in Tokyo.*

THE DAY'S CHANGES

	% Change
Kuala Lumpur	-13.3
Jakarta	-4.8
Singapore	-3.9
Wellington	-3.7
Taipei	-3.3
Hong Kong	-2.9



The Nikkei 225 Average gained 261.74 to 14,369.63 in moderate trading after fluctuating between 13,664.74 and 14,389.83.

The Topix index of all first-sector stocks improved 3.66 to 1,110.15.

Banks were active. Sakura Bank was the most heavily traded share, rising Y26 to Y274 on talk of 3,000 job cuts under restructuring plans. Fuji Bank gained Y5 to Y405, and the Bank of Tokyo-Mitsubishi Y22 to Y1,020.

Exporters, especially car companies and electronics groups, were mixed. Toshiba, the electronics giant, improved Y14 to Y521. Nissan Motor gained Y6 to Y382, but NEC lost Y10 to Y1,031. Honda Motor lost Y110 at Y4,750 in spite of announcing record first-half earnings.

In Osaka, the OSE index slid 65 to finish at 15,298.

WELLINGTON was one of the weaker regional markets with the 40 capital index closing off 67.48 at 1,760.06. Volume was said to be minimal. Fletcher Paper fell 13 cents to NZ$1.12.

Air New Zealand's globally traded B shares gave up 18 cents at NZ$1.73. NZ Telecom lost 17 cents at NZ$7.63.

SINGAPORE fell 33.10 to 823.33 on the Straits Times index with the news of capital controls in Malaysia sparking heavy selling. Brokers said the combination of the overnight shakeout on Wall St and Malaysia's actions had been "lethal". The OTC market, which mostly tracks Malaysian shares, tumbled 8.2 per cent.

JAKARTA sank 4.8 per cent to a five-year low, which took the composite index down 16.58 to 325.85. Index heavyweight Telkom was among the biggest losers, off Rp325 or 13.8 per cent to Rp2,025 on 18.6m shares traded.

TAIPEI fell 215.02 to 6,335.09 on the weighted index. Electronics ended 4.1 per cent lower, having run up losses of almost 6 per cent early in the session. Compal Electronics fell T$6.50 to T$102.50 and Taiwan Semiconductor T$2.50 to T$59.00.

HONG KONG ended 2.9 per cent lower after a choppy session that also saw the index move briefly into positive territory on short-covering.

The Hang Seng index lost 212.57 to 7,062.47 in turnover that shrank to HK$6.2bn, suggesting the government had refrained from intervening.

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FINANCIAL TIMES **REVIEW**

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FT IT Information Technology

Wednesday **September 2** 1998

For leading IT companies, it's research or die

As the pace of global competition quickens, well-managed research and development is the key to the future of the world's top IT companies. The flow of new technology into the marketplace is critical to their success, reports **Paul Taylor**

When product cycles were measured in years rather than months and competition was mostly confined to local geographies, companies could afford to take a relatively relaxed approach towards research and development spending.

But times have changed. As Alan Wood, chief executive of Siemens' UK-based operations, noted recently: "Microelectronics and software are determining the speed of innovation more than ever.

"Product life-cycles have become shorter and shorter; in some of our businesses, they have been reduced to half a year. More than 70 per cent of the products and systems Siemens currently sells worldwide are less than five years old."

What this means, in turn, is that at least 70 per cent of what the company sells at present will have to be replaced, refreshed or invented in the next five years if it is to remain competitive, he says. "A key to maintaining and improving our competitiveness will be successfully managed innovation programmes."

Today, for most companies, particularly those in the fast-expanding information technology sector, maintaining or increasing R&D expenditure while improving the efficiency of the process is now a vital ingredient if a competitive edge is to be maintained.

"We regard high value-added [intellectual property] contribution as the key to profitable growth," says John Taylor, director of Hewlett-Packard's European research centre in Bristol.

As a result, R&D is increasingly a key indicator of the health and vitality of an organisation – a fact reflected in the worldwide surge of investment in industrial research last year, led by US-based companies.

According to the UK Department of Trade and Industry's annual International R&D Scoreboard, the world's top 300 companies spent £131bn ($216bn) on R&D last year, 12.8 per cent more than in 1996, while 133 US companies in the scoreboard raised total spending by 17 per cent to £59bn ($97bn).

Both increases were the largest recorded since the department began compiling the scoreboard in 1991. Within Europe, Swedish companies stood out, with an aggregate 26 per cent growth in R&D investment.

As Carol Galley, co-head of Merrill Lynch Mercury Asset Management in the UK noted recently: "More than ever, companies in which we invest find themselves in competition with domestic and international companies which have a competitive edge, either in terms of the cost of labour or the cost of capital.

To succeed against these competitors, companies need superior products or processes, she says. Hence, a successful R&D process is not optional, but crucial to a successful business strategy.

Philip Crawford, managing director of Oracle's UK operations, agrees. "If you don't do R&D, you die," he says. Mr Crawford argues that business software companies such as Oracle have to spend 10 to 20 per cent of revenues on R&D if they are to survive. "R&D expenditure is the lifeblood of a software company," he says.

As with other software companies, Oracle is expanding its links with academic institutions and broadening its R&D base geographically. As part of this trend, the group is expected to soon announce additional investment in the Cambridge Oracle Research Laboratory, lifting its current 50 per cent stake.

Other companies – including Cadence, the West Coast-based software tools and chip design group, and Microsoft, the world's largest software group – have also recently announced R&D investments in the UK.

These investments extend the global research networks being built by the main IT multinationals which increasingly embrace development centres in India and Europe, as well as California's Silicon Valley. "You need to spread the load outside of Silicon Valley," says Mr Crawford.

At the same time, big IT companies are using research and development to reinvent themselves. Kevin Gibson, the new managing director of SAP's UK-based operations, notes: "We see R&D as critical. You must continue to reinvent and recreate the product. It is a continuous innovation cycle."

High-tech startups naturally boast some of the highest levels of R&D in percentage terms and, to some extent, as a company grows it is inevitable that the percentage of revenues devoted to R&D will decline somewhat.

But despite its rapid growth, SAP still spends about 17 per cent of its revenues on research and development. "Some aspects of our business are now maturing, but other parts are still in start-up mode," says Mr Gibson. "We are a paradox, to some extent."

Maintaining high levels of R&D spending is clearly easier when a business is growing, but there is growing evidence that it is also a vital constituent of any turnaround strategy.

For example, Bob Finocchio, who took over as chief executive at Informix, the database software group, a year ago, insisted that despite the company's serious problems, R&D spending be maintained.

"It isn't enough just to get your products out of the door," he says. "You have to invest in the future." Among the the group's 3,500-strong workforce, 1,000 are involved in R&D. Far from reducing research spending as part of the restructuring, he says: "We have actually increased our spending on R&D."

Similarly, when Lou Gerstner took over at International Business Machines five years ago, one of his first visits was to the IT goliath's TJ Watson Research Center which, together with IBM's other research labs, is responsible for keeping IBM at the top of the patents' award league.

Even though IBM was haemorrhaging money at that stage, Mr Gerstner told the anxious IBM researchers that the R&D budget would be maintained.

"Well-managed R&D is the solution, rather than the problem," says Paul Horn, head of IBM's $5bn-a-year research programme. "The commitment to R&D comes right from the top."

Mr Gerstner's interest in IBM's research programme – which includes huge investments in areas such as ease-of-use and integrated IT solutions – is to ensure that the group has the technology and systems required for the next generation of products and services, says Mr Horn.

"The technology engine will keep chugging along and if we do not do it, someone else will," adds Mr Horn who has put in place a highly sophisticated system for managing the group's investment in R&D and ensuring that it delivers real value.

One aspect that is critical for success is the flow of new technology into the marketplace, he says. In part, this has been achieved by reoganising the funding of R&D and ensuring that it is closely tied to business objectives.

At Siemens, Mr Wood says the management of innovation has two basic dimensions: "Corporate innovation teams at the heart of the organisation focusing on our core business areas. And a global innovation network aimed at maximising the talent experience and expertise available in our operations around the world."

As part of this effort, the group has set up centres of competence with responsibility for design, development and manufacturing of designated products or systems around the world.

"Whether it is a centre for Internet solutions in the US, or a centre for advanced software development in India, the aim is to make the most of our intellectual capital," he adds.

Echoing this emphasis, Carol Galley of Merrill Lynch notes: "Our key message is that companies should ensure that their investment in R&D creates value. In other words, the expected return from the investment should be greater than the cost of capital appropriate for the company and project.

"To achieve this, the investment must be coherent with the overall strategy of the firm and be efficiently managed. And in our view, the level of achievement should be measured by the amount of shareholder value created, and not the amount of money spent."

Ms Galley cites Ericsson, the Swedish telecoms equipment

Turn to the back page of this review

IT NEWS UPDATE

The millennium 'bomb' is far from defused and time is running out for companies to deal with it, writes **George Black**

Year 2000 crisis looms

With only 486 days – or 69 weeks – left before the new millenium, it is increasingly clear that there is a real risk of disasters resulting from the so-called millenium computer "bomb".

Neither governmental nor commercial organisations around the world have taken seriously enough the threat of systems failure caused by the date change on computers.

Although the validity of the warnings is gradually being recognised, it may be too late to take effective action to ensure that critical systems are reliable.

A report by the G8 group of leading industrial nations stated that even its own members were late in preparing for the date change and that other nations around the world were lagging behind them.

Outside G8, governments have under-estimated the task and their assurances about being ready are probably not reliable, said the report. It referred to parts of eastern Europe, south Asia, particularly India and Pakistan, and South America as the areas most at risk. It also expressed strong concern about the state of the nuclear industry, especially in eastern Europe.

The United Nations has asked all member-states to ensure that their infrastructures are year 2000-compatible by July 1999.

A study of 15,000 companies in 87 countries by researchers at the Gartner Group found a high level of unpreparedness. The group said 23 per cent of the world's companies – 80 per cent of these small ones – had not yet *begun* to amend their software.

> A survey of 15,000 companies reveals a high level of unprepardness

Most industries were rated as high risk, or as being exposed to a critical business failure, with healthcare among the slowest to respond. Western Europe lagged six months behind the US, it said, with Germany a year behind and many countries in eastern Europe, the Middle, East Asia, Africa and South America even further behind.

The World IT and Services Alliance is holding a global year 2000 summit in London on October 15 and 16. The World Bank and the IMF are holding a seminar in Washington on October 5 to debate the challenge facing developing countries.

The UK's Public Accounts Committee warned that hospital patients could die because the National Health Service's year 2000 programme had fallen behind.

The NHS Federation, made up of health service experts, has advised the government to order the suspension of non-emergency operations in December 1999 because of possible systems problems, even though it would add greatly to waiting lists.

Banks in Britain are worried that customers may make huge withdrawals of cash before the end of 1999 because of a fear that cash dispensers will fail.

Many of the UK's largest companies are still failing to record in their annual reports what they are doing to tackle the problem, despite instructions from the Stock Exchange and the Accounting Standards Board.

A survey by Edinburgh-based Company Reporting found that a third of businesses which had reported since April had not given any details of their spending or manpower devoted to the task or stated who had management responsibility for the issue.

The UK water industry regulator Ofwat is checking on the progress of water supply companies in achieving year 2000 compliance after the government's Action 2000 committee said the industry was falling behind.

Fears of disruptions in the supply chain: see page 4

SOFTWARE ACTION

SAP in $500m US lawsuit

SAP, the German business applications company, has been hit by a $500m lawsuit from a US company which claims that SAP's R/3 software contributed to its collapse.

The case has been brought by FoxMeyer, a drugs distributor which went into bankruptcy in 1996. It is suing SAP claiming that the software was a "significant factor" in its demise.

In July, FoxMeyer launched another $500m lawsuit against Andersen Consulting, which helped to instal the software.

Both SAP and Andersen have rejected the charges. SAP said the accusation "bore no relation to the facts". But the news of FoxMeyer's lawsuit against SAP caused a sharp drop in SAP's share price.

FoxMeyer was using an early version of R/3, which has since been adopted by a large numbers of companies worldwide and has turned SAP into the world's largest business applications vendor.

Andersen Consulting was one of the early enthusiasts for SAP's software, recommending it strongly to clients and doing much of the management consultancy and implementation work.

FoxMeyer alleged that SAP's "fraudulent and negligent conduct" induced it to invest millions in a system that failed to deliver.

It was intended to run the company's sales, distribution, order processing and stock control systems. FoxMeyer claimed that SAP treated it like "its own research and development guinea pig", using the project to assess the "severity of R/3's volume problems."

FoxMeyer was subsequently acquired by its competitor, McKesson.

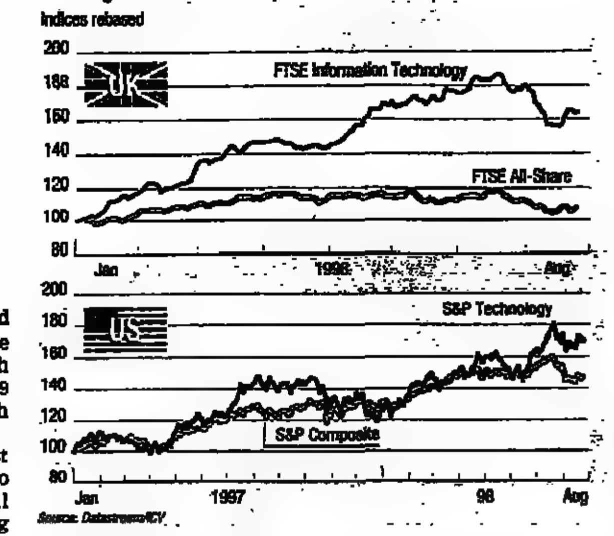
The case represents the biggest potential set-back that the German company has yet faced in its extraordinary rise to global leadership of the business applications sector.

Last year, SAP, a leader in a market that has seen astonishing growth, was the subject of an inquiry into insider share trading in Germany, which created some unfavourable publicity. However, the present case could affect SAP's reputation much more fundamentally. It recently listed its shares on the New York stock market.

Focus on the software market for enterprise resource planning systems: page 9

How high tech sectors outperform

Indices rebased



Source: Datastream/ICV

RESEARCH DIGEST • By George Black

Euro software is on the way

All the leading accounting software vendors will have shipped products which can handle conversion to the euro, the new European currency, by the official triangulation method before the end of this year, says Basda, the UK Business and Accounting Software Developers Association.

Basda recommends users to upgrade their software this year to deal with triangulation, but to continue to run their systems in local currency until later in the three-year transition.

Java makes progress

UK users are increasing their commitment to the Java language, according to a study by Bloor Research. Although not many large Java-based projects have yet been completed, users say they intend to increase their use of the language in the next couple of years.

However, the research found that users are still sceptical about the concept that Java will produce a standard which will enable them to write programs once only and be able to run it on any computer.

Tools market takeovers predicted

The market for software tools for configuration management has grown at over 40 per cent a year for the past five years and represents a significant area for acquisitions by the top computer companies – so says Ovum, the London market research firm.

Software tools are needed to support ever-larger teams of software developers in different places working to tighter deadlines on complex projects with many changes being made to programs.

Outsourcing 'to double in six years'

The European IT outsourcing market is set to double in the next six years, says the US market research firm, Frost & Sullivan.

In spite of the bad press that surrounds many outsourcing deals, users feel that their IT problems are more likely to be solved by outside experts than by their in-house IT departments. Frost & Sullivan believes that outsourcing will spread into cultures up to now resistant to it, such as Germany. By 2004 the largest parts of the market will consist of network management (18 per cent) and process management (17 per cent), it says.

An e-commerce boom ahead

Electronic commerce will be one of the principal engines of economic growth over the next ten years, forecasts Datamonitor, the London-based market research firm.

Spending on e-commerce software will grow at an average annual rate of 41 per cent over the next four years to $285m. But more must be invested in software for inventory databases, customer records and Web publishing to exploit e-commerce to the full, says the research.

Phenomenal growth in the Internet services industry is forecast in a new report by Frost & Sullivan. As companies begin to incorporate the Internet as part of their telecom needs and the number of subscribers in the consumer market increases, the market for Internet services in Europe – now worth $9.9bn – will rise to $51.7bn by the year 2004.

Students reject IT

Three-quarters of students have not even considered a job in IT, according to a survey by Apex Computer Recruitment.

Seven out of ten said that computer specialists had a negative image and more than half said they were clever, but lacked social skills. A quarter of those who rejected the idea of a career in IT considered the business too technical.

Women were more likely to turn down a career in IT than men – 86 per cent said they would not consider the idea, compared to 69 per cent of men.

RECRUITMENT

The IT skills shortage is increasing

The year 2000 computer-date problem plus new systems projects for conversion to the euro currency are contributing largely to a worsening shortage of information technology skills.

Salaries for IT jobs in Britain are rising by around 6 per cent per quarter, according to recruitment agency, Computer Futures. This compares to official figures which indicate that pay rates across the economy are rising by 4 per cent a year.

The UK government's Department of Trade and Industry has commissioned surveys of how firms are coping with the skills shortage.

Companies are increasingly having to take into account the availability of staff when forming their IT strategy decisions.

Many are using bonus schemes to try to retain their key IT staff to cope with the year 2000 and euro projects and to reduce fast-rising turnover among employees caused by staff poaching.

Most schemes offer bonuses to be paid in mid-2000, when many managers assume the skills shortage will have been relieved by the completion of conversion projects.

British-American Financial Services, which includes Allied Dunbar and Eagle Star, recently offered a 100 per cent loyalty bonus to the 300 IT staff in its life assurance businesses to be paid immediately, with a proviso which allows it to retrieve the money from staff who opt to leave within three years.

According to a survey of UK IT professionals by the recruitment consultants, DP Connect, "the shortages are likely to continue indefinitely". The pace of technological change meant that the problem would not go away when those projects were completed, it concluded.

□ The IT skills shortage will be one of the key topics in the November 4 issue of the monthly FT-IT Review. The main theme will be 'Facing up to the euro' – examing the implications for IT users and suppliers alike.

□ Details of further FT-IT Reviews this year, can be found on page 19 of this issue.

MONTHLY NEWS SUMMARY

An 'unbreakable' encryption system

IBM and the Swiss Federal Institute of Technology claim to have made a breakthrough in developing the first unbreakable encryption system to protect computer data. The technique, called the Cramer-Shoup cryptosystem, was launched at the Crypto 98 conference in the US and will be incorporated by IBM into future security software products. IBM says it will provide a boost for confidence in commercial dealings on the Internet.

Dell takes number two spot

Dell Computer has overtaken IBM to become the world's second largest personal computer vendor after Compaq, according to research by Dataquest and International Data Corporation.

In the second quarter Dell reported turnover up 54 per cent to $4.3bn and profit up from $214m last year to $346m this year. Dell increased its profit margin from 22.2 per cent last year to 22.7 per cent this year, while competitors are struggling to maintain margins. Analysts attributed this to Dell's build-to-order business model which enabled it to take advantage of rapidly falling component prices. *See report, page 12.*

Intel launches new chips

Intel launched new Pentium 11 and Celeron chips which are expected to lead to lower prices for personal computers at both the top and bottom ends of the market. The industry leader is facing tougher competition from AMD and Cyrix.

Intel's 64-bit Merced chip has been delayed until mid-2000 and could be delayed further still by development problems, according to analysts. Intel reported a 29 per cent fall in second quarter earnings and said it expected sales to be flat or slightly up in the current quarter. On top of these problems, the company faces an anti-trust case brought by the Federal Trade Commission, scheduled for January 5.

EDS group wins London contract

A consortium led by the US oustsourcing company, EDS, has won a £1.4bn order to instal the world's largest-yet smartcard ticketing system for London Transport. The system will cover the London underground railway and bus network. Users will be able to pre-load the cards with money at sales terminals in various places.

The system, to be installed by EDS, Cubic Corporation, ICL and W.S.Atkins under the UK government's Private Finance Initiative scheme, is intended to reduce fraud. The cards could also be used for other applications, possibly doubling as electronic purses.

Sun and Lucent messaging pact

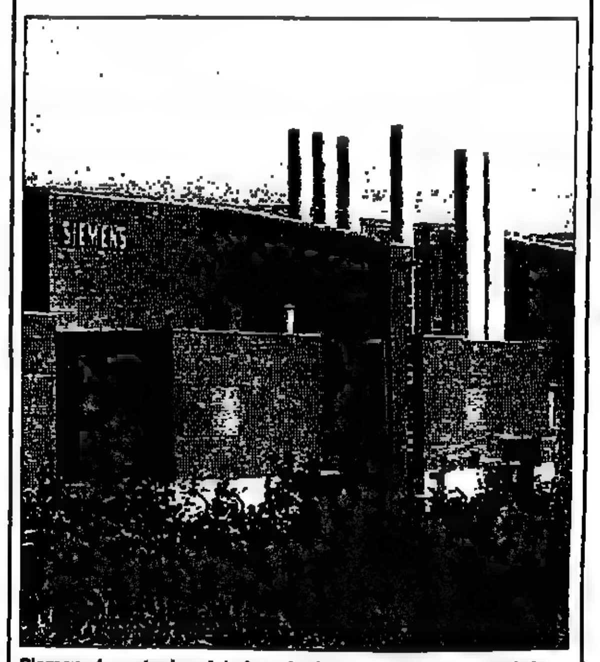
Sun Microsystems and Lucent Technologies (formerly part of AT&T) are working together to develop a single messaging system for users to be able to collect email, voicemail and faxes.

The venture involves Sun's Solaris operating system and Internet Mail Server and Lucent's text to speech conversion system inherited from AT&T's Bell Labs and the voicemail system acquired with the takeover of Octel.

Sun and Lucent hope to sell the product from early next year to telecommunications operators and Internet service providers who will sell services based on it to end-users.

Baan chairman resigns

Jan Baan, founder of the Dutch applications software company of that name, stepped down from the chairmanship of the company after questions were raised in the US about its accounting practices. Analysts had complained that it was hard to distinguish the company's finances from those of Vanenburg Ventures, the venture capital business run by Baan. Chief executive and company president Tom Tinsley has taken over as chairman.



Siemens launched a global marketing campaign last month to try and sell its £1.2bn plant in Tyneside

Siemens to sell UK plant

Siemens, the German electronics company is seeking to sell its UK chip plant which it closed during the summer. The plant cost £1.2bn but was closed with the loss of 1,100 jobs because of falling chip prices worldwide.

The company has approached other chip producers including Motorola, Fujitsu and Samsung, but so far without success. All the equipment is due to be removed from the plant by the end of January. Siemens received £44m in aid from the UK government for building the plant less than two years ago and has offered to re-pay the grant.

Novell launches Netware 5

Novell this week launches Netware 5, its network operating system and a principal competitor to Microsoft's Windows NT and the Unix operating system.

Analysts at International Data Corporation said that Netware 5 stood a good chance of being successful in the market as Netware had a loyal following which was keenly awaiting its improved directory services. Windows NT has gained market share over Netware, but version 5 of NT does not yet have a launch date, so Novell may have a chance to re-gain the initiative before NT5 appears.

Strategic software partnership

In what is described as a breakthrough agreement in the race to defuse the so-called millennium "bomb", Novell, a leading provider of network software, and Greenwich Mean Time (GMT), the diagnostic and corrective software supplier have announced their intention to bundle their products.

This move represents the first leading network software manufacturer to incorporate GMT's year 2000 technology in assisting customers to tackle the year 2000 problems on networked PCs. Novell NetWare has 80m users worldwide. GMT's product is the Check 2000 Client Server toolset.

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The FT Review of Information Technology

This review is published on the first Wednesday of the month. In addition, FT-IT features appear in the 'Inside Track' section of the FT on each of the other Wednesdays of the month. The IT Appointments section is also published each Wednesday.

FT-IT Review, editorial controller: Michael Wiltshire.
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The next issue: Wednesday, October 7. The main theme will be 'The networked world'. Other reports will focus on call centres and image creation and manipulation.
More details on future issues appear on page 19.

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Subscription service: full details appear on page 18 of this review.

Financial Times
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London SE1 9HL

Bob Ridout, chief information officer of Dupont, the $45bn US conglomerate, was able to make big IT cost-cuts and still enhance the business. He talks here to **Michael Dempsey**

Dupont's IT chief knows 'how to follow the dollars'

Ridout: cutting IT costs in half was not enough *Portrait by Walter Hayn*

Cutting the IT bill in half is a remarkable achievement for any organisation. DuPont, the $45bn US chemicals, energy and life sciences group, halved its spending on IT by a spectacular $650m between 1990 and 1995. But for Bob Ridout, chief information officer (CIO) at DuPont, this was not enough.

"When we were spending $1.2bn on IT we felt we weren't getting the value of that sum. So we started cutting costs and got down to $650m. But then we found that what we had was a 'one size fits all' solution. By 1995, we didn't have the choices we wanted, but we *were* lean."

DuPont moved ahead, courtesy of a spectacular $4bn outsourcing deal involving an alliance with CSC and Andersen Consulting. CSC took responsibility for DuPont's global IT infrastructure, including 60,000 desktop PCs. Andersen was given the task of managing and enhancing DuPont's work across the board, from the manufacturing plant to the customer-service relationship.

The structure that the CSC/Andersen team will manage was created by aligning DuPont's IT operations with the company's own global structure. Strategic Business Units, or SBUs, are the primary way DuPont operates.

"We have a mini-CIO in every SBU," says Mr Ridout. Fresh from a 7am global conference call with these executives, Mr Ridout says he has no qualms about devolving authority. "That's the main point of my job. I work through them a tremendous amount."

Mr Ridout has used the deployment of CSC and Andersen to offload some aspects of the IT issue while DuPont concentrates on matters closer to its corporate heart. Since 1997, the company has divested a printing unit, sold to Agfa, while acquiring a UK-based titanium dioxide business, known as "Tioxide" in DuPont's world, from ICI. This Tioxide business was, in turn, integrated into DuPont's White Pigments Business Unit, with a polyester business being simultaneously married into two other SBUs.

Within this complex re-organisation, there was no space for worrying about IT issues. Mr Ridout was not concerned about the apparent relegation of his business discipline. "It was the first time that I can remember when we had a situation like this and IT was not on the critical path. This was because CSC was handling all the questions of access to IT systems within the revised strategic business units."

The outsourcing of DuPont's IT management has changed Mr Ridout's role for the better. "In the past, I would have had to make some difficult choices when confronting the re-organisation of these SBUs."

For him, such choices can obscure other pressing issues. "If I had been sucked into the details of IT in these SBUs I might have been forced to put year 2000 computer-compliance work on the backburner," he says.

For Mr Ridout, the looming question of the year 2000 computer date problem – the so-called "millennium bomb" or Y2K issue – is not something any chief information officer or IT director should ignore. "This issue is a real attention-grabber for the CIO. I don't think there's any CIO who's not worried about the Year 2000."

Freed from unwelcome distractions by his outsourced support, Mr Ridout has other big questions on his mind: "We're thinking of creating a strategic services unit that would include IT in its remit."

This move has been prompted in part by DuPont's widespread adoption of manufacturing software from Germany's SAP. "We've been SAP users since the early 1980s and we now look upon this technology as a tool for the global design and implementation of products and ideas."

CSC's newly-created Chemical, Oil and Gas Group will draw on 400 SAP specialists to support DuPont and future customers in this sector. Dupont of the US and BASF of Germany are the world's two largest chemical companies. Charles Holliday, DuPont's chairman and chief executive officer, has said that Dupont aims to transform itself into a faster-growing and less cyclical group of businesses. The company is planning to float its oil business, Conoco, in the autumn and is seeking acquisitions in the life sciences area.

The whole concept of Dupont's strategic services unit is meant to deliver worldwide answers that can be implemented quickly. DuPont is also faced with upgrading its collaborative IT systems.

The independence of the SBUs has created an unwieldy legacy here, with five different e-mail systems in operation across the world. The e-mail option within DuPont is being converged and expanded around the Lotus Notes product.

Notes creates a constellation of user-groups, each able to communicate and share the contents of their computer screens. He emphasises that the decision to go with Notes is not a rejection of internal company Internet technology, known as intranets. "We *are* also setting up an Intranet – but it will act as something of a repository of information, while Notes is used for one-to-one communication or to conduct meetings."

Notes will be embedded within the architecture and standards agreed by Mr Ridout's team of mini-CIOs and implemented by CSC and Andersen. After agreement was reached on replacing the five e-mail systems that had developed over 10 years, a majority of the mini-CIOs voted for Notes. "The important thing was that we picked one product to operate around the world. Then we told CSC and Andersen what it was."

While these technologies are under review, Mr Ridout has to *wrestle with the question of staff* recruitment and retention. Under the outsourcing deal, 500 DuPont staff moved to Andersen and 2,600 came under the roof of CSC, leaving 1,100 IT personnel within DuPont.

The boom in demand for programmers as businesses try to grapple with the fall-out from the "millennium bomb" is inflating IT salaries and threatening to create a global shortage of the right skills. DuPont is ready to respond with an approach to personnel management which Mr Ridout calls "succession planning".

He says: "We need IT people who really understand our business and our market. We are looking at market-based compensation for IT staff, retaining them by treating them as part of the chemical industry. It's crucial to find what I call 'bridge people' – those who understand both the technology *and* its power to make a contribution . . . these people can actually suggest strategies for the business as a whole."

Mr Ridout enjoys a good relationship with his chief executive officer that many IT executives must envy, since Mr Halliday, DuPont's chairman and chief executive, is an enthusiast for technology. "He came to the job from a posting in Asia where he used IT personally to eliminate the challenges of time zones and distance. I have constant e-mail conversations with Chad Halliday and he's interested in the issues around IT industry suppliers."

This political empathy at the highest level within DuPont is a boon to Mr Ridout. During the battle to halve IT expenditure, he could rely on backing from his chairman. "He would go to IT meetings, too. Putting regional data centres together was easier for some people than others. Turf wars were the real big issue – he understood that situation."

Understanding the nature of each company's business has become a "cliché requirement" for IT suppliers, but Mr Ridout concludes that the CIO with a future really *must* know "how to follow the dollars". He points out that DuPont's relentless growth requires management staff who can match each line of supply to that strategy.

"We've moved into biotechnology, for instance . . . so now we are looking for IT people who 'know' biotechnology and IT in the DuPont sense, so both these elements are exploited to accelerate business growth."

Supply chains are feeling the strain

The emerging concept of a totally-integrated supply chain is bringing great changes in the way many companies operate, reports Philip Manchester

The introduction of the new European currency plus the prospect of disruptions due to the so-called millennium computer "bomb" are just two of the pressing logistical challenges facing many areas of industry and commerce – already wrestling to find IT resources needed for the introduction of supply chain management and enterprise resource planning.

As this survey shows, the advent of the euro will have a profound impact on supply chains in Europe which have evolved to serve mainly national markets. But as currency barriers come down, prices will converge rapidly across the eurozone, bringing new demands on retailers and forcing them to overhaul their fragmented supply and distribution systems.

There is also much uncertainty over the impact on supply chains of the year 2000 millennium "bomb" – also known as the Y2K issue. While most larger companies are taking action, many of their smaller outside suppliers and service-providers have yet to even begin – with the result that the total supply chain could be badly hit, as businesses large and small suffer losses, *(see detailed reports below and on the facing page)*.

Meanwhile, scarce IT resources in many businesses are being further stretched as companies attempt to implement software systems for supply chain management and enterprise resource planning in order to maintain competitive edge.

Distribution of goods and services has always lent itself to automation. Since the early days of IT, tasks such as order processing, despatch, delivery and invoicing have been among the first processes that companies put on a computer.

But the nature of distribution and its part in the supply chain are changing fast. Electronic commerce and open public networking, in the form of the Internet, change the way companies work. One result is that the established applications which cope with distribution tasks are also being forced to change.

"In the last 25 years, we have seen a fundamental shift from production-centred activity to customer-centred activity.

"This has accelerated product life cycles, time to market and the customisation level of products. Inevitably, this has a huge impact on distribution," says Ken Sharma, vice president of US logistics software company, i2 Technologies.

The main change is that distribution is now only one part of the supply chain or what is now referred to as "value chain". The IT applications that handle distribution, therefore, are increasingly being called upon to communicate with other applications and with the outside world. The web-based tracking systems used by Fedex and UPS are examples of how one aspect of distribution has been changed significantly by the Internet.

Both Fedex and UPS have Web sites where customers can use a simple desktop browser to find out where their package is and when it is scheduled for delivery. This both improves customer information and cuts costs.

The emerging concept of a totally-integrated supply chain – from raw material producer through to end-customer – promises even further change. This will have a huge impact on distribution applications and their place in the grand scheme.

Distribution applications have, of course, always had links to order processing, manufacturing and stock control applications. But in the age of electronic commerce, order data may well come from a web page, manufacturing data could be spread across several different suppliers' databases and stock control is being enhanced by warehouse management. They all have a direct impact on distribution and the IT applications which support it.

"We are moving to a world where companies no longer compete with each other – but supply chains do. This means business need more responsive and adaptable systems to support a multi-enterprise supply chain," says Mr Sharma.

FT IT

Logistics

Here and on the following five pages, FT writers highlight ways in which information technology can improve the supply chain

He argues that organisations need tools to help with decision-support in what is becoming an increasingly complex business environment. "Real time decision-support tools are the key to success in the new environment – as indeed are closer relationships between companies in the supply chain."

The trend towards partnerships among companies is now widely seen as one of the pre-requisites for success in many areas of business.

"There is tremendous pressure on companies to collaborate. They are looking for new areas for sales growth and want more responsive systems to support them. But they also need to seek deeper relationships with both suppliers and customers and to increase their market share," notes Julian David, IBM's director of distribution industry marketing in Europe, Middle East and Africa.

It is no longer enough for a company to improve its internal systems, he says. "It has to look at the whole picture and the way distribution systems impact all of the participants from raw material suppliers through to the customer. Organisations that have done this are seeing the benefits – consider Tesco supermarkets in the UK, for example. Its policy of excellence in the supply chain has brought tremendous benefits."

Extending systems beyond company boundaries in this way is, of course, aided by Internet technology in the form of internal company Intranets and the so-called extranet – where applications span multiple enterprises.

"The great advantage of the Internet is that it is a universal standard and it reduces costs dramatically. This allows organisations to set up extended distribution networks through franchise stores – but with the advantages that size usually brings. Even the small tomato grower out in the country can plug into the e-commerce platform with a standard PC and find out what is going on," says Mr David.

He points out that cost-savings are "very real" – especially when it comes to processing transactions.

"Studies we have done show that processing costs are much lower. An air ticket, for example, costs $8 to process. With electronic processing, it falls to around $1. The same cost savings could apply to logistics and distribution.

"The European Commission estimates, for example, that 30 per cent of vehicle movements are of empty vehicles. If you can bring shippers, carriers and receivers together in a single electronic community, they can use a single management and forecasting approach and make productive use of this capacity," he says.

A Southern Pacific freight train makes its way through the Southern Pacific railyard in the city of Industry, California. But long before the goods get this far, IT systems have a crucial role in the manufacturing and distribution chain AP

IBM is working on a number of initiatives aimed at exploiting the Internet infrastructure and products such as Lotus's Domino server to improve collaboration.

Unsurprisingly, so is Microsoft, the world's largest software company. It is promoting cross-enterprise collaboration with its Value Chain Initiative (VCI), which aims to bring participants together in what it calls a "global value chain".

Although one of the main aims is, of course, to promote Microsoft products as the core of electronic commerce applications, it is also an important step towards creating a standard infrastructure for cross-enterprise logistics and distribution.

"We see VCI as a way to make electronic commerce happen. The goal is to enable business information to be shared dynamically between trading partners. It is being driven by large organisations' need to build links with those they do business with," explains John Noakes, e-commerce business manager at Microsoft UK. VCI, he adds, is being supported "by some very large and important names" including Boeing, Coca-Cola, Walmart and General Motors.

In addition, more than a hundred software companies are building VCI support into their products.

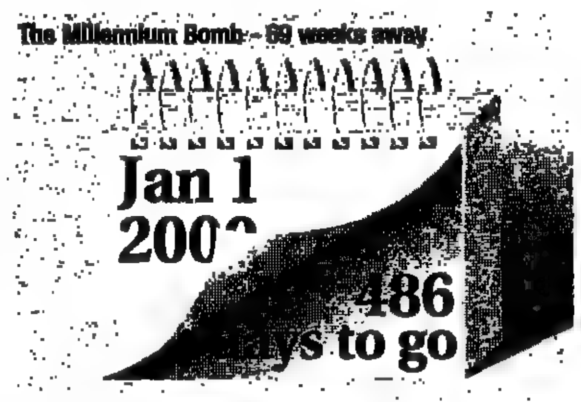
Inevitably, Microsoft will meet with some resistance from competitors and only time will tell whether VCI becomes the dominant underlying model for electronic commerce. But one thing is certain: distribution and logistics applications will never be seen as isolated again; they will, in future, form part of a coherent supply chain management application.

□ Supply chain management and the value chain initiative: see facing page.
□ Enterprise resource planning and "just-in-time" scheduling software: page 6.
□ The impact of the euro; benefits of data warehousing: page 8.
□ Electronic commerce and web-based EDI systems, page 9.

MANUFACTURING SECTOR • By Iola Shillingford

Factories in a race to beat the clock

Meticulous testing is needed to root out embedded computer chips that may not be year 2000-compliant, but time is running out



Defusing the millennium bomb is a colossal task for many larger manufacturers. Not only do they have a vast array of machinery, some of it containing date-sensitive embedded chips, they also have control systems to run it. On top of that, they have business IT systems along with everyone else in the commercial world.

Moreover, they are often part of a complex supply and distribution chain. And they may have to check that the products they are making are year 2000-compliant.

Given the scale of the task, it is perhaps not surprising that preparation across the sector is uneven. Kimball Bailey, a consultant at London-based consultancy, Pagoda, says: "In general, the largest manufacturers are well prepared, but medium-sized and small manufacturers are lagging behind."

Worst-case scenario

"The danger for companies which don't sort out the problem is that their factories could be closed for up to several weeks in 2000 as they wait for replacement parts to arrive," says Gillian Ferraro, IT director for a leading UK paper manufacturer.

Worse still, says Mark Napier, director of the Computers in Manufacturing show, "an error in a critical piece of equipment could cause injury to staff – perhaps because of overheating if a pressure valve is not released early enough, or due to problems with chemical processes. Or a software flaw could prevent a machine from being serviced on time."

Ian Bowman, year 2000 manager at the German company, Siemens Automation and Drives, says: "Most of the machines have some kind of chip in them *and* in the computers that run them. These are hard to find because industrial computers are built into rugged boxes. The advantage is they can withstand being bumped or kicked, but it is a lot of work to take them apart and see what's inside."

Some industrial systems even have a real-time Pentium-based computer inside and visualisation software so that managers can see what is happening on the production line. Real-time systems tend to have a date function and very often only a two-digit field for storing the date. This is likely to cause problems in the year 2000, when the system may assume that 00 is 1900, rather than 2000.

Siemens Automation and Drives, which is a leading supplier of programmable controllers and drives in Europe, is having to go through a process very similar to other manufacturers. It has decided to make its equipment compliant with the British Standards Institute's year 2000 standard.

This involves meticulous testing of all its products and of any software they use. Mr Bowman says he has a 140-page document full of test data with about 20 products per page.

"To get BSI year 2000 certification, our German test centre sets the date on a piece of equipment or software to January 1, 2000. Or to the six or so other dates that need to be tested – for example, 9/9/1999," says Mr Bowman. "The test guidelines indicate the sort of result we should get.

"If the product fails, we have to work out what to do to put it right. It might need a software patch, a flash bios upgrade, or the date might have to be set manually in DOS.

"The last thing we need," says Mr Bowman, "is a valve at a customer's plant opening at the wrong time, or out of sequence, or a motor switching on when it shouldn't. If a valve at a customer site opened and deposited a lot of toxins in a river, that would be a major problem for us, too."

However, by no means all Siemens Automation and Drives products are date-sensitive. In one product group, about 50 per cent of products have no date code. In another group – motors – about 90 per cent do not use a time or date.

Larger manufacturers are up to speed on dealing with the millennium bomb, he adds. "Our own year 2000 plans get audited by them. But there are plenty of middle-sized manufacturers, with say, 100 programmable controllers and several hundred computers, which are ignoring the problem and hoping it will go away.

But the problem will not go away, because these businesses will eventually be questioned by companies higher up the 'food chain', he says.

"These will threaten to withdraw their business if the manufacturer cannot prove it will still be able to operate in the year 2000."

Meanwhile, the onus is on the big manufacturers to share information with the smaller ones which often have limited resources, he believes.

Likely cost

Tackling the year 2000 problem can be expensive. Unilever, which does an extensive range of manufacturing, will spend £300m fixing year 2000 problems. Ferraro expects to spend about one per cent of turnover – a typical figure for year 2000 compliance in Europe, according to stockbrokers Merrill Lynch.

The problem is not that a lot of equipment will fail. "By the time you've looked at everything and eliminated systems that don't use the real-time clock," says Mr Bowman, "you could well be down to two per cent of systems that are affected.

"It's the lengthy process you have to go through to find those two per cent that uses up resources."

Time is also needed to check that customers will have fixed their accounts systems and be able to pay on time, and that suppliers are year 2000 compliant.

Ms Ferraro says that manufacturers worried about their suppliers' level of year 2000 compliance "could hoard stocks causing a shortage of parts."

Even replacing old IT systems with new ones could be problematic for some manufacturers. Pagoda customer Ms Ferraro is taking the path less-travelled of fixing existing business systems, rather than replacing them with an off-the-shelf package.

"If we hadn't started as early as we did," she says, "we would not have had the luxury of making this choice. We're glad we did because some colleagues in the industry are struggling to get bought-in packages adapted in time."

Ms Ferarro warns: "If you're a manufacturer starting to address the year 2000 problem now, you probably won't be able to finish in time. Companies which operate 24 hours a day could find there just aren't enough days left for testing when the plant is shut."

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SUPPLY CHAIN MANAGEMENT • By Geoffrey Nairn

Route for accurate forecasting

Software tools help companies improve their product planning, cut lead times and speed up the management of orders

Supply chain management (SCM) has become one of the hottest segments of the software industry thanks to the competitive pressures driving businesses to streamline their supply chains and reduce lead times.

Compared to the enterprise resource planning (ERP) industry, the SCM market is fairly small with 1996 revenues of just over $400m (£242m), according to the market research company, AMR. However, the market is growing fast – AMR predicts revenues of $1.6bn for 2000 – as more businesses discover that the limited planning capabilities in their ERP systems, from vendors such as SAP or Baan, cannot cope with today's fast-moving business environment.

Companies are instead turning to the sophisticated analytic capabilities of SCM products from vendors such as i2 Technologies or Manugistics. They believe these tools can give them a competitive advantage by improving product planning, reducing lead times and speeding up order management.

The computer industry is a big fan of SCM as it has allowed manufacturers to cope with shorter product cycles and trends such as "build to order" while minimising the risk of having unsold PCs in warehouses.

Using i2's Rhythm product, Compaq's manufacturing and distribution division has reduced its overall inventories by more than $400m in two years and its global planning cycle time from 28 to 14 days.

i2 has traditionally dominated SCM in the manufacturing sector while Manugistics has concentrated more on the consumer goods industry. Recently, however, Manugistics scored a coup by beating its rival to a big contract from Nokia, the Finnish telecoms equipment maker. According to Mary-Lou Fox, senior vice president at Manugistics, the supply chain challenges in the electronics and consumer goods sectors are not that different. "In the consumer area, a lot of the costs are in finished goods inventory and it's the same for high-tech industries.

"If the distribution chain gets overloaded with obsolete PCs, they send them back."

ERP and SCM are often confused but the two disciplines are distinct. ERP systems are designed primarily to run a business more efficiently by tracking transactions across functions such as finance, order management and manufacturing.

SCM systems, by contrast, analyse this information and allow managers to do forecasts and "what if" planning – analysing the effect if a factory were to close for a week, for example.

According to Ms Fox, SCM comes into its own when a manufacturer has several product lines competing for limited production capacity. Some products may be just launched, others are in growth phase with demand growing strong, while still more products are nearing maturity or in decline.

Traditionally, the ERP and SCM vendors have seen their products as complementary and competition has been avoided. However, the ERP vendors are now trying to expand into SCM and this potentially threatens the impressive 50 to 100 per cent annual growth rates enjoyed by the SCM vendors.

"Before SCM was a niche market but increasingly customers are saying their ERP system does not allow them to make realistic plans," says Wayne Webb, European general manager for Baan's new supply chain business.

"The ERP vendors have realised that customers demand this extra functionality."

Baan entered the SCM market last year by acquiring Berclain, a Canadian software house. It has since expanded its SCM portfolio and now claims to be third largest SCM vendor.

Mr Webb predicts Baan's SCM sales will reach at least $40m in the current year, compared with just $18m in 1997.

SAP, Baan's traditional and bigger rival, has also joined the fray with an initiative called Supply Chain Optimisation, Planning and Execution (Scope).

SAP calls Scope "the most significant development initiative undertaken since the development of R/3," its flagship ERP software.

The products that result from SAP's Scope initiative are being developed around database technology from fellow German company Software AG.

Analysts do not see Scope challenging the products of established SCM vendors until 1999 at the earliest. "It takes time to develop a customer-base for SCM," says George Gilbert, an analyst with the securities firm, Deutsche Morgan Grenfell.

Rivals, not surprisingly, are unimpressed with SAP's Scope initiative. "They are playing catchup with a small part of our Rhythm product that is already five years old," says Roger Taylor, European director of mid-market solutions at i2 Technologies.

"ERP vendors will bring out supply chain capabilities that will be very generic and not industry-specific," says Ms Fox of Manugistics.

If SAP does deliver on its promise then Scope could open the SCM market to smaller companies that cannot afford the million dollar price-tag of stand-alone SCM products such as i2's Rhythm.

"SAP could commoditise the low end," says Mr Gilbert. This is because ERP vendors could include a supply chain module within an overall ERP licence for little additional cost. This threat has led i2 Technologies to target smaller customers with a factory planning package that, while lacking the features of the Rhythm software, sells at a much cheaper price – around $250,000. "It is the first serious attempt to offer a fixed-price factory planning solution for mid-sized companies," claims Mr Taylor.

The growing competition in the SCM industry has not gone unnoticed on Wall Street which recently slashed the sky-high ratings enjoyed by the sector. The blame, claim analysts, lay with Manugistics and Logility, a smaller SCM vendor, which both reported quarterly losses, while i2 presented an uncharacteristically cautious trading forecast, blaming slow sales on competition from ERP vendors.

"SAP has introduced another potential player in the market and that extends the sales cycle for all of us," admits Mr Taylor of i2.

Mr Gilbert believes the re-rating was long overdue "valuations have dropped back after climbing through the roof" – and he believes the medium-term growth prospects for the SCM industry as a whole remain as strong as ever.

When supply chains break down, the cost in human lives can be catastrophic. Above, a Sudanese boy dries himself in the sun after getting his daily wash from his mother, in Panthao, in Sudan's famine-striken Bahr El Ghazal province. Due to logistical and political conflicts, the amount of aid reaching southern Sudan is not enough to turn the tide of famine, which kills hundreds daily AP

THE BUSINESS WORLD: IMPACT OF THE YEAR 2000 PROBLEM • By Geoffrey Wheelwright

Procrastination will be very costly

As large companies race to solve their year 2000 problems, their suppliers could cause havoc in the supply chain

The global economy is a web of interconnected markets – when one catches a bad cold, they all sneeze. This point has been driven home forcefully in the wake of the financial crisis in many Asian countries when nations as far away as Canada, New Zealand and Australia suffer along with them.

The same is true of corporations. When demand for new housing slumps in Japan, for example, orders for the Canadian lumber used to build many new homes also declines. And that, in turn, hits the Canadian economy.

And it could get far worse. Computer experts are warning that the whole Asian crisis could be a "walk in the park" compared to the prospects facing many businesses in the face of the so-called "millennium bomb" computer problem (which means that older computer systems and software will mistake the Year 2000 for the year 1900).

As current problems in Asia have demonstrated, businesses the world over are so dependent on one another that if a given region of the world fails to act quickly enough to solve its year 2000 problems, it could have a knock-on effect for many others.

The same is true at the supply chain level. If a corporation ensures that it is completely year 2000-compliant internally – yet its many outside suppliers, distributors and customers are not – then it could end up being just as badly bitten by the computer "bug" as if it had done nothing. Take the case of the large vehicle manufacturer who finds out in 1998 that all of its internal systems are systems are year 2000-compliant, but that a complex problem is already beginning to unfold at car dealerships all over the world.

The problem is compounded by the fact the computer systems in place at its car dealerships are starting to tell consumers that their three-year warranties have run out. The time left on the warranty date is calculated by taking the date when the warranty runs out in 2001 and subtracting the current date from it.

When 2001 is read mistakenly by the computer system as "01" (because it is only capable of handling the last two digits of the date), it then subtracts "98" (the last two digits of 1998) and comes up with a negative number. As this number is less than zero, the computer then generates a message saying that the warranty has expired.

Gary Gray, a computer consultant at US-based Information Technology Resources, recently explained at a user conference held by the software giant, Computer Associates, that even large corporations such as the car maker, Isuzu, faced this problem.

When Isuzu initially talked to his company about the problem in 1996, year 2000 solutions were a "hard sell" because the Y2K issue – as it is often called – had not then received as much publicity in Japan as in North America. But when reports of problems started coming in from US dealerships, he said that Isuzu quickly became keen on a year 2000 solution.

There are hundreds of other examples where this kind of problem came from – and they all point to the fact that ensuring supply chain compliance will be absolutely crucial in helping companies survive the problem.

According to a recent survey by the computer services and business consultancy company, Cap Gemini America, however, there are lots of companies that are still nowhere near being ready. A new survey shows that America's largest corporations are confronting significant obstacles as they accelerate efforts to address the Y2K computer challenge.

The survey interviewed IT managers at 128 of the nation's most successful firms. Six out of seven Fortune 500 firms have now launched a "full-fledged strategy" to deal with year 2000 issues, but big challenges still loom. In percentage terms, the number of US companies taking action on year 2000 problems has increased from 20 per cent to 88 per cent in seven months. And the same proportion – 88 per cent – say they have detailed year 2000 plans in place, up from 33 per cent in December 1997.

Amid this burst of activity, however, Cap Gemini suggests that growing numbers of big corporations are under-estimating costs, falling behind schedule, and experiencing year 2000-related breakdowns. "Corporate America is finally dealing head-on with the year 2000 challenge," says Jim Woodward, senior vice president of Cap Gemini and head of its Trans-millennium Services group.

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BUSINESS-TO-BUSINESS TRADING • By Geoffrey Nairn

Early optimism could eventually evaporate

The business-to-business industry could remain fragmented in dozens of incompatible trading systems

Enterprise software has helped revolutionise businesses internally and there is now growing interest in extending efficiency gains throughout the value chain by using the Internet to link business partners and streamline trading.

Web-based procurement is poised to radically change the distribution of value within supply chains. Some observers see the Internet rapidly reducing barriers to entry in many markets and turning high-margin goods into low-margin commodities.

Nicholas Negroponte, Internet guru and founder of the Massachusetts Institute of Technology's MediaLab, believes electronic commerce could lead to the disappearance of distributors and middlemen through a process called "disintermediation", in which the Internet allows the middle links in the supply chain to be bypassed.

Art Mesher, research director at the Gartner Group, says disintermediation does poise a threat to inefficient extended supply chains but he disagrees with the commoditisation thesis. "Properly applied the Internet can be used to protect profit margins by improving supply chain processes and strengthening trading partner relationships," he says.

The problem is knowing how to start. Companies hoping to begin business-to-business (B2B) trading over the Internet discover there is a plethora of different approaches: web-enabled versions of traditional EDI networks; online auctions and bulletin boards; and mainstream e-commerce software products from vendors such as IBM or Microsoft expanded to handle business transactions.

For companies that have standardised on an Enterprise Resource Planning (ERP) technology to run their business processes, linking suppliers and customers into their existing ERP systems might seem a logical way to optimise their extended supply chain.

But the likes of Baan and SAP have been surprisingly slow to develop B2B products and analysts caution they have little experience in electronic commerce as their expertise lies primarily in automating internal corporate processes.

Nevertheless, the ERP industry is keen to move into this promising market and in June, SAP announced a Business-to-Business Procurement (BBP) product that aims to delivers the best of both worlds in business procurement.

Nicholas Negroponte, IT guru, believes electronic commerce could lead to the disappearance of distributors and middlemen through a process called 'disintermediation'

BBP cuts down the time and money wasted on sourcing non-critical products, particular non-critical items needed for maintenance, repair and operations (MRO), by allowing end-users to purchase goods and services directly from their desktops.

At the same time, the purchasing department maintains the benefits of centralised control and power for strategic purchasing operations. "Customers can achieve successful supplier management rather than juggling haphazard supplier relationships," says Peter Zencke, SAP executive board member.

The system is based on SAP's flagship R/3 ERP product and combines workflow techniques with a Web-based interface that handles the entire requisition-to-payment cycle from a single screen.

According to the company, BBP can be implemented in just weeks, saving at least 20 per cent in time and cost over stand-alone solutions. However, the product will not be shipping to customers until the end of this year.

The effectiveness of purchase decisions depends on having a sufficiently ample range of products and vendors from which to choose. Using the Internet, a corporate buyer can potentially tap a greater pool of suppliers but the technology needs to be kept simple and transparent.

A small company is unlikely to have the time or resources to deal with a plethora of incompatible electronic trading systems imposed by its various customers. SAP's BBP system supports three different approaches to business trading: a catalogue can be hosted internally on a corporate intranet; the system can connect to an independent "content aggregator" which in essence creates a virtual marketplace where supplier meets customer; or the system can link directly into a supplier's web-based catalogue.

Catalogues are at the heart of most B2B systems and SAP's system can access a wide range of catalogues from vendors such as Harbinger and Commerce One, two leaders in this field. Harbinger, for example, has developed TrustedLink Procurement, a Web-based electronic purchasing application which enables casual or expert buyers to order supplies online from a catalogue of company-approved vendors.

Commerce One recently launched a pre-packaged catalogue to make online procurement easier. This lists 5m items from more than 5,000 suppliers of MRO, IT capital equipment and office supplies. MRO is an obvious target for electronic trading because existing paper-based processes are cumbersome and inefficient.

"Large companies find it hard to handle the buying of non-production items and it can be as costly to process an order for a box of paper-clips as it is for a $10m part," says Zenkat Mohan, marketing vice president at GE Information Services.

The company's TPNPost and TPNRegister trading systems have delivered dramatic savings on the sourcing of production and MRO goods within the companies that make up General Electric group. Procurement varies considerably between industries and analysts say while one approach may be suited to a particular sector, such as fashion goods, it may be hopelessly ill-suited to sourcing MRO items, such as pencils or cleaning fluids.

This is one of the big problems for B2B commerce. The needs of individual trading communities are often very different and so it is difficult to build the critical mass of support behind a particular trading system.

Some early attempts to build online trading communities failed for this reason. In an attempt to build support, Microsoft last year launched its Value Chain Initiative (VCI), which now has more than 130 participating vendors. VCI aims to create integrated, end-to-end real-time online transaction support for supply-chain applications.

But Microsoft's is just one of many initiatives, some backed by IT companies while others, such as the Open Buying on the Internet (OBI) Consortium, driven by the buying requirements of large customers. Analysts fear that if the B2B industry remains fragmented in dozens of incompatible trading systems, then B2B commerce is unlikely to live up to its early optimism.

ENTERPRISE RESOURCE PLANNING • By Tom Foremski

A way to open up new areas of business

ERP systems can centralise data within an organisation and help transform the business in response to changing market conditions

Enterprise Resource Planning (ERP) has become a key topic for IT departments within large and medium-sized organisations and its successful implementation can bring great rewards or nothing much at all.

The integration of all manufacturing and all related applications for the entire enterprise into a single monolithic IT system is the textbook definition of ERP, but its actual implementation becomes different for virtually each company. This is because ERP systems are not just a package of inter-related components, but a significant tool for taking a company into new businesses and speed the execution of new strategies.

This is only true, however, if ERP systems have been designed to complement the way a company works, or, as is the case more often, the company has agreed to change its way of thinking to accommodate the ERP system they have chosen.

The ERP category is very broad, but market analysts say that it is also one of the fastest and largest areas of software and services. AMR Research predicts that the ERP market, valued at $14.8bn this year, will grow at a compound annual growth rate of 37 per cent over the next five years, reaching $52bn by 2002.

If you count related third party services, hardware, databases and networking, this year's $14.8bn figure becomes an ERP infrastructure market that is worth more than $42bn.

The clear market leader is SAP, followed by PeopleSoft, Oracle Applications, Baan, and JD Edwards. These five companies hold 64 per cent of the market in terms of revenue. With an ERP market boom of 64 per cent growth in 1997, some observers have suggested that it is fueled by year 2000 'fixes'.

Many companies have been installing ERP systems in order not to have to rewrite their existing applications. But with ERP systems taking at least 18 months to deploy plus additional testing time, if companies are buying ERP systems now as a "Y2K fix", they will not make the year 2000 deadline and will suffer from leading software failures.

Clearly, companies are realising that there are many other benefits of ERP that go beyond Y2K fixes. "Given the time it takes to select and implement these major systems, companies have already passed the Y2K deadline," notes Tony Friscia, president of AMR Research. "We believe that most Global 1,000 firms are well advanced in their ERP deployments and will now seek to extend ERP and related applications throughout their global supply chains."

These expansions of ERP will take three forms, says Mr Friscia. ERP vendors will offer new applications such as supply chain management, customer support, and human resources. And ERP vendors will try to expand the number of licences sold into their installed base.

Ten to 20 per cent of a company's staff now access the ERP system, and AMR predicts this will grow to as much as 60 per cent of staff over the next five years. And the third expansion is the spread from using ERP in the manufacturing sector to virtually every type of enterprise, including retail, public sector companies, and healthcare.

ERP systems take a lot of IT resources, and while many companies choose to handle the building and maintenance of these systems themselves, increasing numbers are outsourcing ERP. For example, Continental General Tire recently signed a big ERP outsourcing contract with Siemens Nixdorf – some observers say that ERP outsourcing will be the next big wave in outsourcing, in the same way that companies outsourced payroll operations and other IT operations.

While ERP systems can be shown to provide a generous payback, a recent survey shows that not all companies installed ERP systems expecting them to save money on their IT costs. A survey of IT executives by *Information Week* Research showed that 11 per cent do not expect their ERP systems to pay back their investments, and one quarter say their ERP investments are more than $10m. That's a lot of money to spend with the expectation of little or no payback.

But the reward comes in other forms: it centralises data within the organisation and makes it possible to transform that business more rapidly in response to market conditions. ERP systems have, in some cases, managed to transform smaller companies into global players and exploit business opportunities that would have been difficult without their ERP systems.

A key issue, however, is the Internet, and how ERP systems can be Internet enabled. While US companies are ahead of European and Asian counterparts in making use of the Internet for electronic commerce and for distributing information within and without the organisation, most ERP systems are not easily Internet enabled.

Mark Hunter, chief executive of Axon Solutions, which installs SAP-based ERP systems, believes that the focus for ERP vendors has moved on from the older argument over competitive advantages. "The battlefield has now moved to outward integration, using e-commerce to integrate your customers and their suppliers." ERP systems also provide companies with a foundation for improving their business without necessarily making any big new IT investments. Mr Hunter uses the analogy that "many ERP systems are like having a Porsche, but it is only doing 30 mph."

His company recently suggested three simple procedural changes to a client. "They increased the benefits at almost no cost, without making a single change to the software," he says.

Within a few years, virtually every company of note will have an ERP system, which cancels out competitive advantages. But it is the way those ERP systems are used that will generate the next wave of competitive advantages.

Asian factories have pioneered highly organised 'just-in-time' production systems: above,1,000 workers stitch uppers for Nike shoes in Ho Chi Minh City, Vietnam. One floor below, 2,000 other workers are doing the same. AP

ADVANCED PLANNING • By George Black

Managers rush for scheduling software

'Just-in-time' technologies are now being used by manufacturers worldwide

When Ford lost a week of vehicle production because it ran out of parts in June, it seemed to cast doubt on the value of just-in-time technology.

A shortage of cheap door latches from a German supplier caused by a software error led to a very expensive stoppage at Ford's Dagenham and Cologne plants.

JIT technology was also seen by some as having caused the shutdown of many of General Motors' North American plants around the same time when the company ran out of parts during a strike.

The Japanese JIT system, the origin of which is sometimes attributed to Toyota, was much discussed in the 1980s and hailed by its enthusiasts as the secret of producing the required goods of the right quality and quantity exactly when they were needed.

Operated in Japan by the use of *kanban* cards, JIT is a "pull" system, that is driven by the producer's demand for parts, in contrast to earlier systems such as manufacturing resource planning (MRP-11) which were "pushed" by the output of suppliers.

Designed to eliminate waste in over-production and to minimise inventory, transport costs and waiting time, JIT sounded too good to be true – and in some cases proved so. Sceptics warned that it was too theoretical and that its jargon of "total quality management" and "zero defects" would not easily translate to a real factory.

More a manufacturing philosophy than a practical system, JIT was indeed often found to be too strict in its demands, forcing both manufacturers and suppliers to live on a knife edge.

Suppliers who were given 14-day rolling schedules of requirements in which the daily updates could fluctuate by 30 to 40 per cent, complained that they could not cope.

As a result, the approach was generally modified to make it more practicable by the addition of time and stock "buffers" which could avert the risk of disruption in the factory.

The recent incidents at Ford and GM, though they may indicate the pitfalls in the system, are unlikely to undermine confidence in the concept, as JIT systems are now being adopted by manufacturers worldwide in an effort to improve supply chain management.

For example, at Midland Industrial Plastics, a UK components supplier to the car industry, JIT has provided a huge competitive advantage, according to its information technology manager Matt Stevens.

"Because of our JIT capability, we have become a preferred supplier to Land Rover, our major customer," he says.

The company is alerted when a vehicle comes out of the paint shop and within two hours it has manufactured and delivered the parts to Land Rover ready for use. The software for this process is now being adopted by JBA as part of its product set.

Fast-growing software sector

Now more commonly known as "advanced planning and scheduling" (APS) systems, this sector has become one of the fastest growing in the software market, according to a recent survey by the US consultancy Automation Research Corporation.

It says the APS market grew by 60 per cent last year and it expects APS sales to rise from $625m in 1997 to $3.8bn by 2002, as the take-up of the systems spreads down from the largest producers to a much wider market. APS has already taken off in the US and looks set to do the same in Europe, according to ARC.

The reason for the growth lies in the quest for better customer service and pressure on manufacturers by the big retailers to introduce new methods of trading.

ARC's survey concludes that the drive by retailers to adopt vendor-managed inventory and efficient consumer response systems lies behind the rapid uptake of APS software.

"Enterprise resource planning (ERP) systems do not allow manufacturers to react quickly enough," argues John Watts, marketing manager for Scheduling Technology Group, a UK-based contestant in APS.

"ERP systems make assumptions about average lead times and delivery dates which do not enable them to provide the high level of customer service now expected," he adds.

"Build-to-order" is the objective of many manufacturers in industries from cars to personal computers. The benefits of building to order include sharp reductions in stock and lead times to delivery.

Mr Watts claims that the APS approach has delivered reductions in stock levels of up to 60 per cent and cut lead times to a quarter at some of his customers.

The leading ERP applications vendors such as SAP, Baan and SSA were to varying degrees wrong-footed by their customers' conversion to APS and are now racing to introduce APS functions into their program suites.

SAP's Scope development project will deliver, among other things, an advanced planning and optimisation (APO) product, due for general release in December.

This will compete with leading APS vendors such as i2 Technologies, Manugistics, Numetrix and Scheduling Technology Group, whose specialised products have been bolted on to installed ERP systems to provide the extra functionality that manufacturers want.

SAP has had 260 people working on the development of its APO product in Germany and the US since September last year and introduced it at 15 pilot sites during the summer.

Charlie Ward, head of the Scope initiative in the UK, said that APO would bring short-term benefits to manufacturers who had up to now only derived longer-term benefits from its R/3 ERP suite.

In particular, manufacturers will be able to do far more accurate demand planning, he says.

YEAR 2000 PROBLEMS

Disruptions are expected

From previous page

"But while large businesses are taking the job seriously, they're running into difficulties and delays," he warns.

Smaller companies also face hefty bills – a typical year 2000 PC project for a UK company with 500 staff will cost more than £528,000 ($871,000), according to the new Alpine report.

Karl Fielder, president and chief executive of the international software company, Greenwich Mean Time, *(http: // www. gmt-2000.com)*, says: "Our tests reveal that there are actually five separate layers of each PC that must be tested and fixed: the hardware itself, the operating system, the software programs, user data, and data that is imported and exported."

(See also page two, news summary: strategic software partnership with Novell).

Mr Fielder, who is a year 2000 adviser to governments in the UK, South Africa and Australia, says: "It's pure myth that the bulk of the cost of year 2000 readiness is due to hardware. Less than 1 per cent is spent there.

"Based on our real world testing, 21 per cent of the cost is spent on software issues – and 77 per cent goes to resolve data issues."

While there is still time to resolve the problem, "business owners must act now – procrastination will be very expensive."

According to Action 2000, the UK government's Y2K advisory body, there are 3.8m small businesses in Britain.

In the US, the Cap Gemini survey shows that corporations are finding year 2000 work unexpectedly costly and difficult. The percentage of companies under-estimating year 2000 costs increased from 82 per cent to 87 per cent since December, with only 2 per cent describing their cost estimates as "on target."

Meanwhile, 69 per cent are unable to assess whether they will be able to adhere to 1999 spending projections.

While all of that is bad enough, a survey says that US corporations relying upon others to provide key products and services could be faced with disruptions in supply chains. Based on a combination of project progress and risk failure factors, the survey found the utility, transportation and health sectors were in the greatest danger of Y2K computer failure.

If this situation does not improve dramatically, US corporations could find that even though they and their immediate manufacturing suppliers and customers are in compliance, they will face uncertainty in how much power and water they can obtain, whether or not they can physically move their products to market – or even offer employees proper health insurance.

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~~SDAY SEPTEMBER 1 1998~~

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By George Black

...ers rush for ...ing software

Fast growing software sector

...ns are expected

IBM

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EUROPE'S NEW CURRENCY • By Geoffrey Nairn

Distribution networks braced for big impact

Retailers will be forced to rapidly overhaul supply and distribution to cope with pan-European sourcing and more volatile demand patterns

The arrival of the euro presents European companies with a golden opportunity to consolidate fragmented supply and distribution networks and create a single pan-European market.

Supply chain management is still in its infancy in many European companies, but consultants believe the advent of a single European currency will stimulate new interest in using IT to tie together their fragmented supply chains and create more efficient distribution networks.

However, many companies have not yet woken up to the full impact of the euro and their vision is limited to fulfilling the legal requirements of the new currency and the functions necessary for the dual-currency phase, which starts in January 1999.

"They have not yet considered the impact on the supply chain," laments Chris Huckle, a director at consultancy Price Waterhouse Coopers (PWC). "It's just not on their radar yet."

With the introduction of the euro on January 1, the elimination of exchange risks and costs will make cross-border trading easier. European companies will find it easier to source components and sell products in the 11 countries that make up the eurozone.

"Today, it is much more cumbersome as you have to deal with currency fluctuations," says Peter Jorgensen, a euro specialist with IBM's retail and distribution division.

The euro will have a profound impact on supply chains in Europe which have evolved to serve mainly national markets and are thus ripe for rationalisation once the currency barriers come down.

After the arrival of the euro, Austria is just another German-speaking country," says Mr Jorgensen, who sees regionalisation based on language as one solution for retailers to cope with the challenges created by a single currency zone.

"A retailer might want to redesign its sales force around regions rather than countries," says Mr Jorgensen. "That will have a heavy impact on its IT systems because today they are typically different in different countries," he says.

One challenge for manufacturers and retailers of pharmaceuticals and consumer goods is the current high price differences between similar products sold in different European countries. For example, the price of toothpaste can vary by more than 100 per cent across Europe.

Once these products are priced in euros, the pricing differences will be much more obvious and difficult to sustain, retail consultants predict.

Mr Jorgensen talks of a "Domesday scenario" in which prices converge rapidly across the eurozone, forcing retailers to rapidly overhaul supply and distribution to cope with pan-European sourcing and the more volatile demand patterns created by the greater "price transparency" that the euro promises.

"Companies will need to make a much more aggressive use of IT to handle this fundamental change," he says.

The large food retailers operate today on tight margins and over-stocking is kept to the minimum with short supply chains and using techniques such as efficient consumer response (ECR) that assume a highly predictable demand.

The euro could lead to more volatile demand for some products as consumers will be more inclined to cross borders to take advantage of pricing differences. According to Chris Huckle of PWC, these "arbitrage opportunities" could create "unpredictable and illogical demand patterns" in products whose demand has traditionally been very predictable – such as canned tomatoes.

"The moment you get a 3 or 4 per cent variation in demand, the retailer has to start thinking seriously about running out of stock," he says. "A 10 per cent variance on forecast would be a disaster."

Specialists in marketing claim the Domesday scenario can be avoided and the euro's impact on differential pricing minimised with more emphasis on branding.

They argue that consumers will happily pay more for one product than another with similar properties because of the perceived differences in brands. "Brand equity is a very big issue," says Ralph Baer, euro consultant for UK-based consultancy Druid.

He believes brand-based pricing differences will survive and prosper in the eurozone, but in industries where branding plays a minor role and whose products can be sourced from a wider range of suppliers, the arrival of the euro is likely to intensify competition. "It's more challenge than opportunity for these industries."

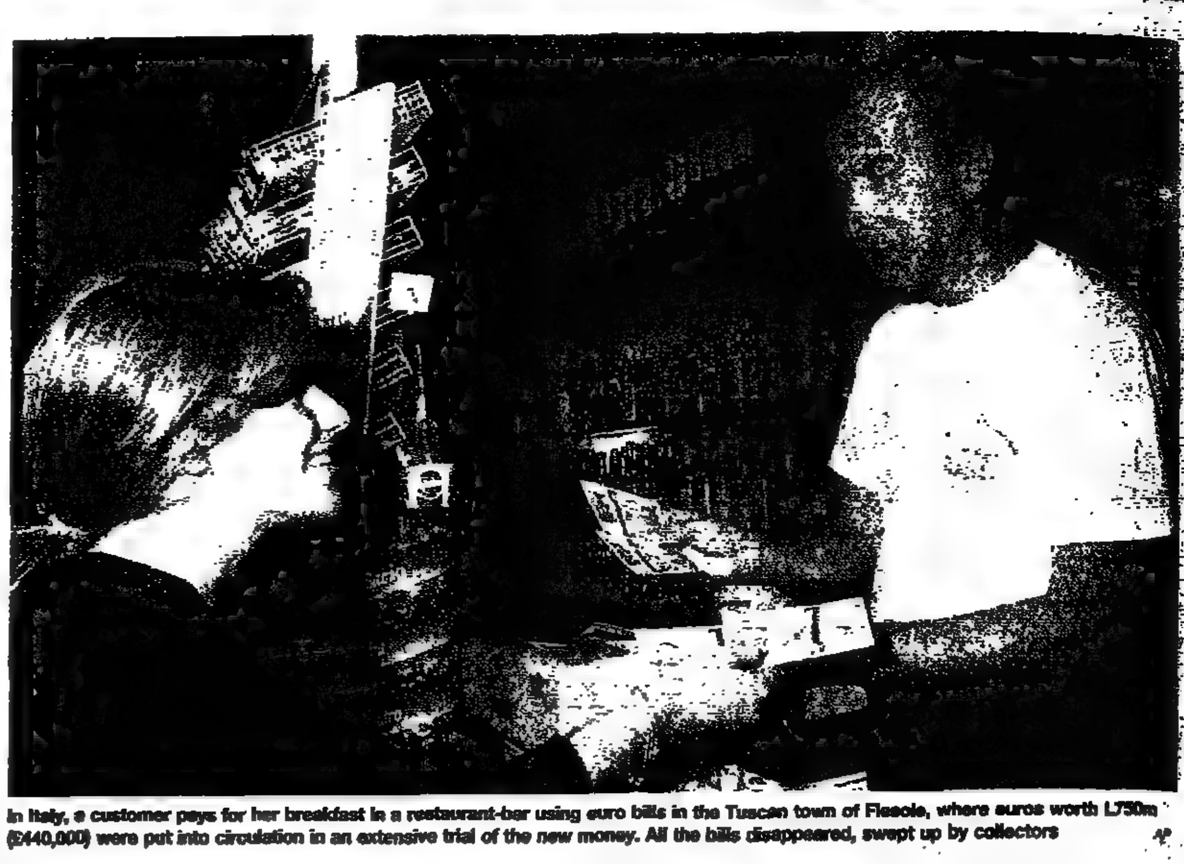
Faced with the complexity of tying together a patchwork of national logistics networks and IT systems, some companies will opt for the "Big Bang" approach and build a single "euro-compatible" system to manage their supply chain across Europe.

"A lot of retailers have bespoke systems and are now thinking of moving to off-the-shelf products such as SAP's R/3," says Mr Jorgensen of IBM. Last year, SAP announced a version of its best-selling R/3 enterprise software specifically for retailers. It also has a "consumer products" version that includes optimisation planning and execution of the extended supply chain.

All SAP's current application packages now contain full "euro functionality" and existing customers can upgrade to receive the release free of charge.

The company is also organising a European Monetary Union conference this month in which pilot customers will describe their experiences in upgrading their systems to the new currency.

Analysts say both SAP and Baan, its main rival in the European Enterprise Resource Planning (ERP) market, are well-advanced in adapting their systems to handle the technical challenges of the euro. But users of other systems need to start asking their vendors tough questions about euro compliance, according to Mr Baer of Druid. "There's no doubt at all that there are some companies with ERP systems that cannot be modified for the euro," he claims.



In Italy, a customer pays for her breakfast in a restaurant-bar using euro bills in the Tuscan town of Fiesole, where euros worth L750m (£440,000) were put into circulation in an extensive trial of the new money. All the bills disappeared, swept up by collectors AP

DATA WAREHOUSING • By George Black

Easing suppliers' problems

Walmart, the US retailer, is proving to be a model for many European manufacturers on ways to reap benefits from data warehousing

More manufacturers will soon be better able to provide their customers with what they want – and still make a decent profit.

The adoption of data warehousing technology should make it easier for them to strike the difficult balance between offering customers a good service with a wide range of choice and achieving an acceptable profit on the operation.

While manufacturers have been keen to raise profits by limiting the number of options for customers, the market has been demanding ever more choice. Manufacturers have been slow to take up data warehousing systems as a possible solution to this problem.

Only in the past three years have a few of the boldest US producers started to experiment with it in the way that retailers, banks and telecom companies began to do in the late 1980s.

UK manufacturers have only started to adopt it in the past year and hardly any have progressed far enough to claim any big success.

But soon there should be some important results from their first projects. Where retailers are willing to share information with their suppliers across an extended supply chain, there could be very significant benefits.

"The extended supply chain has become a very powerful trend in the past year in this country," says Chris Elliott, marketing director for logistics software vendor, Manugistics.

By combining information from their various enterprise resource planning (ERP) systems from SAP, Oracle and Baan, into a data warehouse, retailers and manufacturers can make it much easier for people to know what is happening in the supply chain and thus improve customer service.

ERP systems and intranets can help towards improving the flow of information in a supply chain, but allowing broader access to a data warehouse may boost it even more.

Alastair Sim, UK head of product management and strategy for software company SAS Institute, argues that ERP systems which are designed to run a business day by day are not well suited to analysing information on historical trends.

Manufacturers therefore need to build data warehouses which can perform that task and can potentially produce huge improvements in efficiency, he says.

Richard East of NCR: 'Retailers have everything to gain by sharing information with their suppliers and have only to break the bad old habit of keeping it to themselves'

An international survey by International Data Corporation in 1996 concluded that data warehousing generated a median return on investment of 167 per cent, with a payback period of around one and a half years.

However, it seems that most users do not know what the actual return on investment is, because according to the Data Warehouse Network, around two-thirds do not cost-justify the project.

A model that many European manufacturers will be studying is Walmart, the US retailer, which has cut its risks and increased opportunities for its suppliers by letting them own the goods and stock the shelves.

To achieve this it has provided suppliers with open access to its data warehouse, so that they have an up-to-the-moment view of how their products are moving in the stores.

The US retailer, Walmart, has boosted efficiency by providing suppliers with open access to its data warehouse. Pictured here is Roger Steele, a Walmart Supercenter departmental manager, checking displays of 'Dr Enuf' bottled softdrinks in Johnson City, Tennessee AP

This has given them a much better ability to deliver the right quantities of goods to match demand. Also, it has enabled both the retailer and its suppliers to cut out many purchase orders, invoices and reconciliations.

Furthermore, suppliers can gain access to sales data straight from the point-of-sale, instead of having to buy it from a market research organisation, which makes them better able to respond quickly to market trends.

This has proved an extremely successful formula and is now being copied by some European retailers with their suppliers.

Richard East, a vice-president of the data warehousing systems vendor, NCR, says retailers have everything to gain by sharing information with their suppliers and have only to break the bad old habit of keeping it to themselves.

In the past decade, manufacturers have been trying, with limited success, to move towards mass customisation, that is, using mass production techniques to provide customers with products which are designed to their individual requirements.

Thus, someone buying a new car in the 1980s might have been told by the salesman that he would ring around and try to find one that matched the specification. Today, the details would be sent electronically to a factory and the vehicle would be made to order.

Data warehousing should facilitate this sort of service by making information on stock and delivery schedules available to the salesperson while the deal is being done.

Not only will this greatly increase the chance of turning a prospect into a customer, but the deal should become more profitable because of the savings in lower stock levels and more cost-effective delivery channels.

Manufacturers should also gain by tightening control over production and rationalising their purchasing.

The market for data warehousing systems is about to be revolutionised by the entry of Microsoft and SAP, two of the software industry's leading companies.

At the top end of the market, as part of its Scope development project, SAP has recently introduced a product called Business Warehouse, which will integrate data warehousing with its R/3 ERP system.

SAP is hoping to persuade manufacturers to launch data warehousing projects after they have finished work on the year 2000 date problem and conversion to the euro.

At the low end, Microsoft is entering the field with a product called Plato, a small-scale data mart for running on Windows NT-based systems. This is expected to push down prices for data warehousing tools sharply and open up the user market to many smaller firms.

"Between them, SAP and Microsoft will make data warehousing into a mainstream technology," says Ruediger Spies, a director of the Meta Group consultancy.

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problems

high quality
low cost
software development
on-shore/off-shore

ERP MARKET • By Geoffrey Nairn

Software vendors target smaller companies

Suppliers offer a new range of cheaper, headache-free solutions to small and mid-sized organisations

After years of astonishing growth, the market for enterprise resource planning software is showing signs of cooling. The industry has become a victim of its own success, experts believe, because there are today few large organisations that do not have an ERP project running or planned.

With growth from their traditional customer-base slowing, the mainstream ERP vendors such as SAP and Baan hope to find new revenues from smaller businesses that, until now, they have largely ignored.

AMR, a US market analysis company, estimates there are 50,000 mid-sized manufacturing sites worldwide that today are running old manufacturing resource planning (MRP) systems – the predecessor to today's ERP technology. Many of these systems are close to obsolescence and if the ERP industry could persuade their owners to upgrade to ERP, AMR predicts it would generate fresh revenues of \$15bn to \$20bn in application software and related services over five years. The problem, however, is ERP software has a reputation as a complex technology that only the biggest companies can afford – manufacturing giants such as Boeing and Ford are classic ERP users.

Time and money are often in short supply in small and mid-sized enterprises (SMEs) and ERP projects have a reputation for consuming large quantities of both. For big organisations with multiple sites, ERP software licences can be very costly while projects may grind on for several years. Smaller companies balk at the expense and commitment involved in traditional ERP systems but are keen to use the technology if only it could be tailored to their more modest needs.

These needs have traditionally been ill-served by the ERP industry as Spexel, a small Canadian paper manufacturer, discovered when it was looking to buy ERP software to run its business. The company needed to have its new system operational in just four months and invited offers from six big ERP suppliers.

"Most of the vendors dropped out because of the time constraint or because we were too small of an account," says Eric Martin, Spexel's director of information system development. Spexel eventually chose Baan because its ERP product seemed better suited to the needs of paper industry and got the systems running in just 11 weeks.

Along with many smaller companies, Spexel uses Intel-based servers and the Windows NT operating system to run its business instead of the more costly Unix systems favoured by larger ERP customers. Analysts see the growing maturity of Windows NT as an "enterprise" operating system as one of the most important factors driving the low-end of the ERP market. In the past year, Baan has seen the share of ERP licence sales that comes from PC-based systems running Windows NT rise from 5 to 35 per cent.

"We continue to see a growing migration of customers to the Microsoft Window NT platform," says Tom Tinsley, Baan's chief executive. Earlier this year, Baan unveiled a strategy to attack the SME market with packaged ERP applications that run on a variety of hardware, operating systems and databases.

The aim, according to Baan, is to provide smaller companies with a "complete solution that is fully integrated and ready to run, right out of the box."

These product "bundles" attempt to take many of the headaches out of choosing, installing and configuring ERP systems by providing SMEs with pre-tested combinations of software and hardware from vendors such as Compaq, Digital and HP.

Customers can choose from SQL Server, Oracle or Informix databases and Windows NT or Unix operating systems.

Baan last year created an indirect sales channel to sell its products to SMEs and complement its existing direct sales force, which only sells to larger customers. In its most recent quarterly results, Baan reported almost \$100m of direct sales compared with indirect sales of \$33m. Analysts say revenue growth in Baan's indirect channel has so far been disappointing even though it has adopted one of the most aggressive strategies to attack the SME market.

It is not alone. SAP, the industry leader, claims half the installations of R/3, its best-selling ERP product, are now in SMEs. A third of the 13,400 installations it had at the end of 1997 were in companies with revenues of less than \$200m and only 17 per cent were in big global enterprises with turnovers of more than \$2.5bn. Like Baan, it has created ERP "bundles" to make it easier for SMEs to use R/3.

Most of the big-name ERP vendors have their sights set on SMEs, much to the annoyance of the many lesser-known ERP vendors that have traditionally had this market to themselves.

One such is JD Edwards, comparable in size to Baan but not so well known. It has traditionally specialised in ERP systems designed for IBM's mid-range AS/400 computer – a favourite system for mid-sized companies that is now showing its age.

JD Edwards recently launched a new range of Unix and NT-based products but will continue to support its AS/400 customer-base.

SSA is another mid-range ERP vendor traditionally strong in the AS/400 market but it has been less successful in making the transition to the newer platforms and reported flat sales and a loss in its last quarter.

The mid-range ERP market has suddenly become a lot more competitive and at first sight the big vendors seem well-placed to extend their dominance into this arena. However, analysts warn that while SAP and Baan have strong product ranges, they have little experience of selling to the SME market and lack the industry focus and customer loyalty that the smaller vendors have built up over the years.

The man who started it all: Tim Berners-Lee, inventor of the World Wide Web, pictured in his office at the Massachusetts Institute of Technology. Among the hundreds of business applications for web technology is the increasing use of web-based EDI AP

EXCHANGING DATA: WEB-BASED EDI • By Nuala Moran

At last, a low-cost solution

Smaller companies can now afford to use web-based EDI in supply chain integration

Traditional electronic data interchange (EDI), in which trading information such as orders and invoices is transmitted in an open format across secure, privately managed networks, is being replaced by web-based EDI in which secure messages are passed over open networks.

This shift is enabling smaller companies, previously deterred by cost and complexity, to join electronic commerce networks, allowing direct communications between suppliers and customers regardless of geography, and making it possible to rationalise the supply chain by cutting out distributors.

Roger Till, chief executive of the Electronic Commerce Association, says web-based EDI "will unquestionably be an important driver," in reducing costs in the supply chain.

"It is low cost – and it is very easy for small and medium-sized companies to get into," he adds.

Highlighting the difference in cost, David Cullis, managing director of Kewill Electronic Commerce, a supplier of electronic commerce software and services says: "In the past, the expense of traditional EDI solutions, which can cost anything up to £10,000, has restricted their take-up."

Now, he says, even the smallest companies can trade online using Internet-based services such as Kewill's Xtra Trade. "For only £250 a year, organisations will be able to exchange catalogue information, orders, invoices, advance shipping and sales information, with multiple retail trading partners.

One of the companies using Xtra Trade is the long-established UK department store group, Bentalls. Sarah Roper, operations director for the group, says: "We have been using traditional EDI with a limited number of suppliers for some time.

"However, take-up of this technology has been relatively slow as something like 80 per cent of our suppliers are small businesses which don't have the resources to invest in EDI software and trading costs."

Ms Roper cites three reasons why adopting Xtra Trade will enable Bentalls to build its electronic trading community: "First, it is low cost, at a connection fee of £21 a month," she says.

Second, it offers a comprehensive range of messaging options. "We are particularly keen for suppliers to use Xtra Trade to build electronic catalogues, which will significantly reduce the data processing burden and guarantee the accuracy of information from both sides."

Finally, because Xtra Trade is based on open standards, multiple retailers can benefit, avoiding significant duplication of effort.

Bentalls is now working in collaboration with rival store groups Allders and Selfridges on an awareness and education programme to encourage small and medium suppliers to trade with them via the Xtra Trade service.

A similar initiative is under way among UK supermarkets, with moves to create a shared web-based EDI network. "Given that supermarkets have so many suppliers in common, if you want to optimise the supply chain, then using the Web is the only way to go," says John Lister of ASDA.

"It is unreasonable of supermarkets to demand that every supplier has a different way of dealing with them."

One large supplier who concurs with this view is David Laing, logistics and management systems director of CCL Custom Manufacturing, which fills and packages aerosol and liquid goods ranging from household cleaning agents to personal hygiene, pharmaceutical and automotive products for large companies including Unilever, Proctor & Gamble and Bristol Myers Squibb.

Some suppliers are forced to use different PCs, each configured separately, in order to meet the different EDI protocols used by their customers, he says.

CCL is now using the open standards of the Internet to give customers and suppliers access to supply chain information. "At any time, a customer will be able to drop into our web page and view their order status. Equally, our raw material suppliers will be able to download our planned production schedules and see how they need to re-align their own production plans.

The days of posting production schedules on hard copy and disc will soon be over."

In recent years, large companies have cut costs out of their supply chains by restricting the number of

Turn to next page

CASE STUDY: INTERNATIONAL BOOK DISTRIBUTORS • By Philip Manchester

Service levels enhanced as sales rise ten-fold

In managing a site with 23 million books, IBD is holding its own in an increasingly competitive market by using its IT systems to the full

International Book Distributors (IBD), a UK subsidiary of the US Viacom group, has seen its sales volumes increase by ten-fold in the last five years – but it has managed to achieve this extraordinary growth with only a fourfold increase in staff.

In 1993 it operated its pan-European distribution activities from an 86,000 sq ft warehouse stocking some 3.5m books. Now it runs a 210,000 sq ft site managing 23m books – with the prospect of a continuing increase in volumes. The company is currently in the process of being taken over by the Pearson Group.

Inevitably, IT has played an important role in keeping control of the rapid expansion of its business at the same time as holding staff levels and costs down. With a current annual growth rate of 30 per cent in its business – and limited resources – IBD is keen to exploit its IT systems to the full.

At its Hemel Hempstead headquarters, IBD runs an IBM AS/400 commercial package called TMS Bookmaster to handle order processing and accounting.

The package is connected to the warehouse at Lutterworth in the Midlands via a dedicated kilostream link.

"The sales orders are fed into the TMS application and then sent to our warehouse management system to pick and pack the stock for shipment," explains Keith Clark, IBD's inventory manager.

IBD uses Acacia Technologies' Warehouse Boss package to cope with the highly complex business of managing its warehouse and stock. The package – chosen because it runs on the AS/400 computer – links directly to the TMS order processing system. It also lets IBD handle the distribution activities of third-party suppliers: "We use electronic document interchange (EDI) links through TMS to several organisations which handles billing and orders. But we can also plug clients straight into the Warehouse Boss system to speed up distribution of the inventory we hold for them. With VIE, for example, we provide full real-time ordering and delivery," says Mr Clark.

In addition to managing the growing volume of sales – at peak times IBD can ship over 2.8m books in a single month – Mr Clark says that the company has managed to improve customer-service levels.

It operates two delivery services via Securicor Omega in the UK, for example. The Hotline service requires despatch on the same day as the order – with delivery the following day. The normal delivery service ships books within two days and delivery within three. It also promises guaranteed delivery within five days to all EC countries.

The improvement in service has been recognised by an upgrade in IBD's ranking by the Committee of University Book Sellers (Cubs). Three years ago, IBD was ranked 18th – now it is ranked 8th by Cubs and is rated as one of the companies which has improved fastest.

The improvements in its distribution network have also been recognised by the book trade. A growing number of third parties – including publishers of books on computers and for children – are now using its distribution services.

Inevitably, third party organisations have different requirements and IBD's IT systems must be able to handle these. Some third party stock is controlled alongside IBD's own stock and some is operated as separate "logical" warehouses.

"Without the warehouse management system we would not be in the position we are in now and certainly would not attract important third party companies," says Mr Clark.

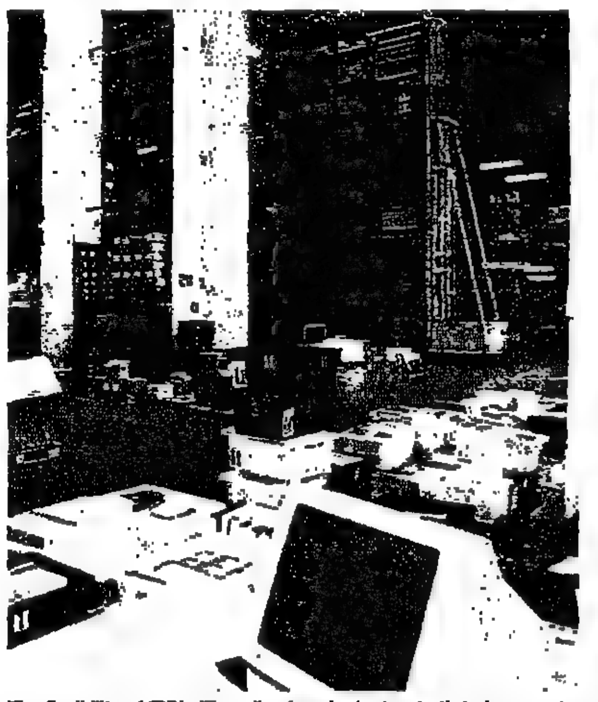
The flexibility of its IT applications is the key both to improved service and better warehouse organisation, adds. "Our system gives us complete control around the warehouse. We can optimise our picking lists to save time. And we can also control where we put stock. We can be sure that we put it in the right place first time round – saving us time and effort in relocating books."

Flexibility extends to the way the system operates – enabling IBD to make changes in the way it works. "We don't have to spend several weeks carrying out a stock check on 23m books. We cycle count at random on a daily basis – which is effectively giving us a twice yearly stock check. More importantly we can change the rules which govern the way we work easily without having to ask programmers to do it for us."

IBD can control all stock movements in the warehouse through the Warehouse Boss package. This includes automatic replenishment of stock to meet customer orders and changes to workflow in the warehouse. It also enables IBD to make the best use of its warehouse space – despite the continued growth in its business.

"We have to keep on finding more space for more products – and automation is the only way we can do that effectively," says Mr Clark.

IBD is holding its own in an increasingly competitive market and has shown that its IT systems can enable it to keep up with international rivals.



The flexibility of IBD's IT applications is the key both to improved service and better warehouse organisation. The system gives the company complete control around the warehouse

More books arrive at IBD's 210,000 sq ft warehouse at Lutterworth. At peak times, IBD can dispatch more than 2.8m books a month

MOBILE DATA • By Christopher Price

Era of super scanners

The industrial market for hand-held computers sometimes appears to be the poor cousin of its more innovative consumer side.

While the latter grabs the headlines with products carrying more features, having better integration and slinkier design, the industrial market pales in comparison.

Roger Goscomb, a logistics and telecoms consultant with CMG, the UK software and systems group, describes the products for the industrial market as "very dull" and in need of modernisation.

"There are too many companies still reliant on expensive proprietary systems for their logistical requirements," he says.

Geoff Kell, sales and marketing director for Psion Industrial, which manufacturers hand-held computers, says: "The commercial market for hand-held terminals is definitely more conservative than the consumer market. "For example, there are very few 32-bit machines operating in industry, whereas on the consumer side its becoming standard."

However, with technology playing an ever more integral role in companies' ability to remain competitive, developments in the industrial hand-held market are beginning to make their mark. Users, too, are beginning to be more responsive to new technology.

Tony Wilson, marketing manager for the international operations of Symbol, the US hand-held devices group, believes advances in bar-code technology will greatly enhance the capabilities of scanning devices.

Two-dimensional bar-coding, which enables 10 times the amount of data to be stored in the strip, has been slow to be taken up by logistics companies. Mr Wilson believes this is partly due to conservatism to new ideas, but also because of cost.

However, with prices beginning to fall, Mr Wilson believes "two-dimensional bar-coding is really beginning to take off. It will allow a customer to integrate much more data with a pretty sophisticated database."

Symbol has used the two-dimensional barcode as the basis for an integrated solution for City Link, the UK parcel delivery group. The problem for City Link was in keeping track of the progress of packages once inside the delivery system.

This applied mainly to business generated by the group's regular customers who were supplied with software to produce their own paperwork and bar codes.

Establishing computer-based communications between City Link depots and the group's regular customers was deemed too expensive.

Instead, it has adopted two-dimensional bar codes. This has allowed regular customers to incorporate much more detailed information on their parcels – and allowed City Link personnel equipped with Symbol PDF4804 scanners to monitor them at any stage of their journey.

One application being examined is to include data on a parcel's weight in the bar-code. This would help in the fight against pilfering from packages, since the weight could be checked by the scanner again at any stage.

A function being increasingly adopted through the hand-held industrial market is pen-enabled screens. These allow the user to input and access data with a pen to the screen. They provide much more flexibility in a work situation, plus they have the added advantage of not needing the user to have keyboard skills.

At this year's giant CeBIT trade fair in Hanover, Germany, the latest developments in the industrial market were on show. Symbol, for example, unveiled a new range of hand-held products based on the Palm Pilot, 3Com's successful stylus-based computer.

Another theme much in evidence was ergonomics, with models becoming smaller and easier to carry. Symbol unveiled its PDT6100, which Mr Wilson describes as "our smallest and lightest scanner to date."

Psion introduced updated versions of its Workabout range, which included models with enhanced scanning capabilities. As interesting were the extensions to the range provided by third party developers.

For example, ID Systems, Blackroc Systems and Deister have developed applications which enable Radio Frequency Identification tags – increasingly popular in warehouse inventories – to be read.

Psion also demonstrated its Vehicle Interface Cradle, a dashboard docking unit for vehicular monitoring. Among a range of modules to go with the VIC are facilities for satellite tracking via Global Positioning Systems, which enable the vehicle to be located by its office or depot.

There is also Vehicle Data Acquisition technology, which allows the input of a variety of data about the vehicle's performance. The additional knowledge this provides to fleet management "can lead to massive savings", according to Psion's Mr Kell.

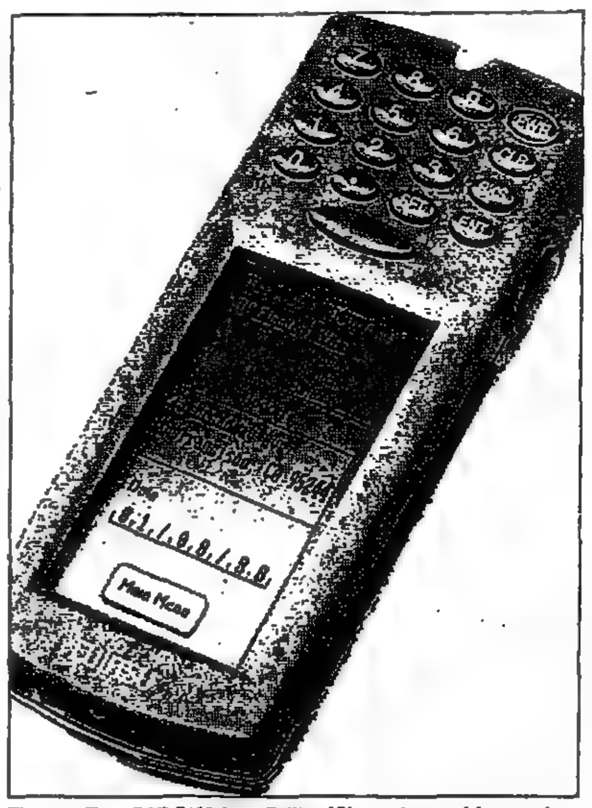
The company has recently signed an innovative contract with Blick National, the UK security systems group. The £500,000 two-year deal also involved Three X Communications, the systems integration group, and RAM Mobile Data, the radio network company.

Previously, Blick offices would be the location where customers rang in their orders and Blick engineers were in contact to receive them.

This led to congestion, as well as time wasting while engineers waited to get through to their offices. However, using the Workabout and the RAM radio network, engineers are able to access the group's central computer to transmit their daily call lists. The computer can then be used for real-time messaging, which is useful for arrival times and spare parts used.

Blick believes it will save £50,000 a year in communications costs by phasing out its mobile phones and pagers, and a further £100,000 a year in vehicle running and fuel costs.

It is developments such as these which lead some in the industry to be more optimistic that industrial hand-held computing is shaking off its dull image and beginning to play a far bigger role in many organisations.



The new TeamPAD 7100 from Fujitsu ICL can be used for supply chain management, logistics and retail applications. Features include a touch-screen, integrated barcode scanner, plus easy-to-use radio communications and a 32MHz processor

Psion has introduced updated versions of its Workabout range, which included models with enhanced scanning capabilities

WEB-BASED EDI

World network of 2,500 suppliers

From previous page

suppliers with which they deal. Web-based EDI could reverse this trend without pushing up costs.

Nuovo Pignone, of Florence, Italy, which manufactures turbines, compressors and other heavy machinery sources 70 to 80 per cent of its supplies from 300 companies. However, the company, a subsidiary of General Electric, has 2,500 suppliers – and these are scattered all over the world and range upwards in size from two-person machine shops.

Formerly, Nuovo Pignone had a traditional EDI network for trading with its large suppliers, but no electronic trading links with the 2,000-plus smaller ones.

The company has now installed an extranet, allowing smaller suppliers to deal electronically via the Internet, while larger suppliers still have the option of traditional EDI over a value added network. Smaller suppliers have access to the same features as traditional EDI, without the start-up costs and with none of the complexities. Nuovo Pignone can track the activities of its suppliers, and at the same time give them access to sensitive data.

Impact

Simon Harrison, associate director of the transport and logistics division at the IT services company, CMG, says web-based communications will have a profound effect on supply chain integration.

"Applications that could benefit include fleet management, distribution scheduling, just-in-delivery, automatic reordering systems, proof of delivery, on-line pricing, regulations and specifications and the centralisation of documentation."

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scanners

Logistics

Campaign managers sharpen up their act

New software solutions help companies to target potential customers and follow through to win results in the marketplace, reports **Rod Newing**

FT IT

Sales and marketing

Here and on the following four pages, FT writers focus on the growing role of IT in the marketplace

Many companies are building customer-oriented data warehouses to gain competitive advantage. They use them to analyse buyers' choices, segment their market, target prospects more closely and predict buyers' behaviour. There has long been talk of linking the data warehouse to operational systems, but with little real substance so far.

However, users are beginning to see how data warehouses can be linked to campaign management software to provide an automatic two-way information flow.

Companies have been building data warehouses for ten years "as something on the side," says Arthur Parker, vice president for IBM's global business intelligence solutions. "They took a snapshot of data, analysed it and this influenced some of the marketing decisions they took. However, you need a strong structure to use the information in an operational sense."

IBM has just announced an agreement to include Exchange Applications' Valex campaign management software in its Decision Edge vertical marketing solutions. NCR, another high end data warehousing specialist, already has its own Automated Individual Marketing Sales (AIMS) product that performs a similar function – *see also the data warehouse report by George Black in the section on logistics, page 8.*

The link between the data warehouse and the campaign management software allows the marketing department to build a system that focuses on events, not merely analysing data. "A customer transaction could act as a trigger to an automated pre-planned personalised campaign," says Mr Parker. "It is more sophisticated than just using the data warehouse to plan a mail shot. And it unlocks some of the potential within it."

Wider trend

The integrated approach being taken by IBM and NCR is part of a wider trend. Vendors such as SAS, Prime Response, Epsilon and Acxiom are also building "end-to-end marketing solutions," says Phil Hulme, a senior consultant in the customer value management group at KPMG Management Consulting.

These systems allow users to identify target groups and follow through to win results in the marketplace, creating a virtuous circle of knowledge management.

"Ready-built solutions are ideal because integration involves many tedious processes. It was once very hard work for user organisations to achieve this," adds Mr Hulme. "Brann Viper is also popular for achieving a similar effect with just desktop data."

Even without a data warehouse, campaign management software is becoming more important. "As marketing departments segment their market into a series of smaller areas, the annual campaign is being replaced by a different one each week," says Gareth Hershel, research analyst for technology-enabled relationship management at the Gartner Group.

"Marketing teams have to be more efficient in running each campaign, so they need more technological support and better applications," he says. "The latest software from vendors such as Prime Response and Intrinsic is much more powerful and user-friendly than previous versions."

These campaign management systems need to work in conjunction with the confusingly named sales force automation packages. The sales process itself cannot be automated, but the software acts as an enabler to support better ways of working for the sales force and gives them more effective means of dealing with customers, says Stuart Penny, founder of software vendor Integrated Sales Systems.

"Big changes can be made by jointly harnessing the power of people, technology and processes," he says.

Globalisation is now a key issue in the marketplace. At KPMG, Mr Hulme says: "Our clients have very large customer base, operating in a wide range of countries and locations. Vendors such as Vantive have an advantage because they have a worldwide infrastructure that can support a big roll-out."

Software vendors are expanding, consolidating and integrating with enterprise resource planning (ERP) suppliers. Gartner's Mr Hershel says: "Exchange Applications has been very successful in the US and is aggressively expanding into Europe. Prime Response, which was traditionally UK and European, is moving aggressively in the US.

"Meanwhile, British Intrinsic is expanding into Europe and Acquis is looking beyond its established French market."

The ERP vendors' "back end" accounting, manufacturing and human resources market is mature and they are looking to the front-end customer facing systems to provide future growth. SAP has developed a product it acquired from Kiefer and Viettinger, and Baan has purchased Aurum.

KPMG believes that taking a customer-centric approach is "a big new wave in software that is just starting – vendors are reflecting this approach. Aurum, Siebel and Vantive are building integrated customer relationship management tools that support anybody who has an interaction with the customer," says Mr Hulme.

"A data warehouse doesn't necessarily present a consistent customer-centric approach in the way these products link the sales force, the support desk, the call centre and the web site."

Shoppers throng London's Oxford Street. Retailers are more likely to attract them with the aid of management technologies that help to identify what customers want, claims Siebel Systems

US example

Computational Systems, a leading developer of predictive maintenance hardware and software, has implemented Vantive for its 180 sales and support professionals, including more than 60 mobile users, located throughout the US.

"We have replaced separate customer databases with a single database for sales and marketing, campaign management and customer support and linked it to our Fourth Shift ERP system," says Shawn Carson, director of customer service.

"Sales staff can check the support case histories on their notebooks before visiting a customer and we can trace an order back to the original advertisement, but the big pay-off is targeting the sales force on high opportunity sales."

In Europe, the use of the Internet for sales and marketing has not taken off in the way it has in the US. Gartner analysts are revising their Internet adoption forecasts for the next two years.

Although there is a lot of interest and hype, vendors are more active than customers in Europe, says Mr Hershel.

Meanwhile, businesses that apply enterprise relationship management technology across their marketing, sales and customer service processes are those that are to likely to better acquire and retain customers, concludes Ms Pat House, co-founder of Siebel Systems.

"They will also increase customer satisfaction, enhance revenue and profitability and ultimately survive through the next millennium," says Ms House.

MEDIA EVALUATION • By Mark Vernon

Key role for IT in the marketing mix

Electronic analysis helps public relations companies to closely assess the value of printed reports

Words in print have been analysed ever since Caxton invented the press. In fifteenth century Sweden, the appearance of the heretical "Books of Zion" led to an assessment of their religious orthodoxy in probably the earliest attempt at media evaluation, upon which the lives of the publishers turned.

Yet even in today's world of media sophistication, the means of assessing the value to a company of news pieces, articles and features, often rises little above the measurement of column inches or the size of a headline.

"Given the increasing amounts of money that is spent on this kind of public relations, which runs into billions worldwide, it is remarkable that PR companies remain so crude in the justification and targeting of the spend," comments Adam Briggs, senior lecturer in communications at the London Guildhall University.

But as organisations become less convinced about the benefits of expensive mass advertising, the PR industry should be in a position to offer a more refined alternative in its stead. But to do this, it must become more accountable. As Jackie Elliot, chairman of PR trade association, the PRCA, says: "If we fail to grab this issue, we will not be able to capitalise on the opportunity. Somewhere between the jargon-rich world of adland and the data-rich world of direct marketing there are metrics to be established for PR."

But the question is *how?* Part of the answer will be found in leading edge information technology. Although the trained human brain is currently the best assessment tool available, improvements in computers, notably with neural networks, should make technology increasingly valuable to the task over the next five years. By then, software sophistication, backed up by sheer computing power, will be able to imitate all the nuances of "message" interpretation.Perhaps the most important breakthrough is in the extension of analysis from numerical data to text.

PR is nothing if not the management of human reactions, though this is all about intangibles such as "the feel" of an article or comment. International Business Machine's text mining solutions provide one example of how technology is now beginning to cope with analysis at this level. Charles Hout, IBM's manager of text mining solutions, explains that two elements are crucial if computers are to "understand" linguists: morphological and semantic analysis.

The first comprehends the text in terms of grammar. The second analyses the text in terms of rules established according to the task at hand.

"We are able to study the degree of satisfaction that customers or commentators have with a product or service. This not only treats words in isolation, but looks at the structure of sentences and inflection. Further, modern analysis algorithms are targeted at specific business issues so that they deliver results which are directly applicable."

Electricité de France, the large utility group, has used IBM's solution to study public perception of its electrical car and nuclear power development programmes in press reports.

Formerly, the assessment of hundreds of articles was carried out manually by an analyst. But the advantages of automation are not just seen in terms of time: consistency is improved, too.

There is the basic matter of human tiredness, but more interestingly the techniques refine the iterative character of analysis, so that as the sample is processed, trends that develop are able to be reflected back on the earlier analysis already carried out.

Further, in combination with public opinion surveys the company has been able to assess how the journalists' angle is interpreted by the reader – dealing with the so-called semiotic gap, the difference between the declaration and reception of a marketing message.

It is not just in the area of PR that IT contributes to enhancing the ingredients of the marketing mix. Properly implemented, data mining tools can be applied to draw out multifarious correlations, patterns, and trends from the large amounts of data held in corporate repositories. These tools make the information accessible to even relatively "non-IT literate" marketers.

However, there is also a danger of a backlash if companies treat expensive IT as an ill-considered panacea to their marketing woes. "A good number of companies have invested in an operational database system, such as a card-based system, without building up the strategic framework that allows a company to benefit from the information collected," observes Tanya Bowen, STS's database marketing consultant.

"Benefits are enjoyed when a marketing database is used as a customer information tool – and not exclusively as a marketing tool," she says.

Her point is that database marketing will not deliver fully if it is only used within direct marketing. But as a customer information tool, on the other hand, it can provide a company with a deeper understanding of market shifts and customer trends, to which PR, for example, can respond.

For the PR industry itself, Merlin Stone, professor of marketing at the University of Surrey, returns to the issue of accountability. It is here that IT might deliver its next benefit, since – as has been pointed out – PR needs means to measure its efficacy.

"This will come with the ability to score how a PR campaign has succeeded," he says. "But whether companies will find PR worth while is then another question entirely, depending very much – I suspect – on the company and industry concerned."

And remember: just because the chief executive sees his picture on the business pages of his favourite daily, does not mean it is useful coverage for the company – though it might increase the PR budget next year.

CASE STUDY: INTERNET SALES • By Geoffrey Wheelwright

Dell's online PC sales surge ahead

In a move to win even more customers, Dell launches an 'online secure shopping guarantee' in the US as its PC sales rise to $6m a day

Rising sales by Dell Computer Corporation, the Texas-based personal computer manufacturer, are now estimated at more than six times the industry rate.

The company that made its name by selling computers over the telephone – and now via the Internet – has become one of America's biggest PC makers, achieving a 72 per cent increase in earnings per share for the second fiscal quarter, with sales up 54 per cent.

Now Dell, whose results for the quarter were above Wall Street expectations, says it wants to make it even easier for consumers to buy its PCs over the Internet. In the past year, the company has already boosted PC sales from its web site from $2m to $6m a day. But Dell worries that concerns about credit card security are holding it back from even greater success.

As a result, it has announced the introduction of what it calls the "Dell online secure shopping guarantee" in the US.

It offers US customers who shop at the Dell Store on the Internet additional protection from credit card theft, misuse and fraud. The company says it protects customers in two ways: all information submitted at *www.dell.com*, including credit card data, personal information and product orders, is encrypted using technology that scrambles the information that travels via the Net to Dell.

The company claims that this makes the information virtually impossible for anyone to read, if orders are intercepted online.

To demonstrate its faith in this technology, Dell is promising to reimburse customers for credit card company liability charges up to $50 if it finds that fraudulent charges have resulted from an online purchase at Dell's web site.

"Dell is focused on protecting the many customers who place orders at our web site every day," says Scott Eckert, director of Dell Online, the company's Web-based sales operation. "Dell is one of the world's top sites for Internet transactions and this new guarantee strengthens our leadership position – in the PC industry, as well as in the domain of companies conducting business online – when it comes to privacy and security."

In addition to the encryption protection and its new guarantee, Dell says it has a policy that prohibits the release of any kind of information provided by customers to any outside company.

Michael Dell, chairman and chief, says that Dell has grown more than six times the industry rate. Revenues for the three months to August 2 were $4.3bn, up from $2.8bn a year ago.

Canadian example

The US is not the only country in which Dell has recently boosted its online sales efforts. In Canada, for example, where you might think that geography and transportation logistics would militate against online shopping, Dell has enjoyed huge online success.

According to Scott O'Hare, president of Dell Canada, it took less than eight months to build an online business in his country – "sales went from nothing to $2.5m a week."

Mr O'Hare says "there is no magic in all this" – just a strong commitment to treat online sales in the same way that it has successfully treated its 1-800 telephone sales operation.

"The Internet is just another way of turbo-charging our direct sales engine – it provides another vehicle to reach them," he says.

Since the company started taking electronic orders from its web site in June, 1997, it has built up what could become a $100m business this year.

One of the keys to this success lies in the fact that selling from a web site is little different from selling via the phone – and it doesn't change the underlying business model of the company – at least for Dell, which is used to selling direct to customers.

"Unlike all of our competitors and many other companies in different industries, Dell has not had to reinvent its business model to make use of the Internet," says Mr O'Hare. "It's just the next natural extension of how to build a relationship with a customer."

He also suggests that the attributes of the Canadian market – with a comparatively small population scattered across a vast area that is the second largest nation on earth – make Dell's direct approach an ideal alternative to retail sales.

"If anything, the geography makes us even more cost-effective than the other tier-one vendors – we don't have to deal with higher cost distribution," he says.

"In Canada, out of the top four suppliers in the PC market, we are the only direct vendor. All of our competition goes through retail or resellers – it adds a lot of cost unnecessarily and also doesn't allow manufacturers to provide total end-to-end quality and customer experience."

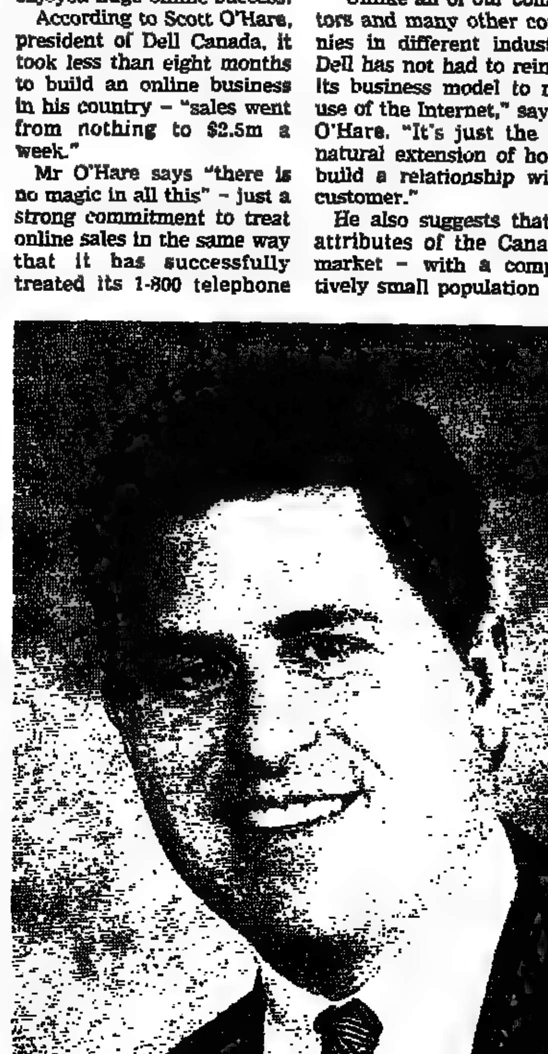
He is well aware that his competitors are looking hard at the Dell model and trying to find ways to make it work for them. Compaq Computer, IBM and Apple Computer have all made moves over the past year to provide some form of direct or "build to order" capability to customers.

Mr O'Hare suggests that by selling to Canadians from Dell Canada's web site, then Canadian customers can obtain better pricing, delivery and specification information than from the American-based web sites of other competitors. "Our Canadian customers can access *www.dell.ca* and get very specific Canadian information, pricing and lead times, specifically for Canadian customers," he adds.

And unlike buying a PC over the phone, Mr O'Hare says Web site purchases can also be a lot faster as consumers can quickly pick the specification for their systems from on-screen options, rather than stepping through many levels of menus and choices from a telephone operator.

"There are a significant number of choices that you, as an educated consumer, can make in buying a PC online," he adds. "It's not like having just three 'flavours' on the shelf of your local retailer. We have have been successful in helping businesses and consumers make those choices over the phone, but with the Web site you can make those trade-offs in real time."

The web site can also be used to track the progress of an online order – which, typically, is delivered five to 10 days after ordering.



Michael Dell, chairman and chief executive, says the company has grown more than six times the industry rate

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...nline PC
...rge ahead

"As part of Lucent Technologies, I'm helping to take communications in Europe to new heights."

JAN NEUTEBOOM. Manager. Software Development

I love the feeling of freedom when I fly. It's like the freedom I have at Lucent Technologies to find a better communications solution.

That's how my team of high-flyers developed a countrywide networked messaging system to service all the Netherlands. And it's why Lucent solutions – from voice and data networking to internet call center applications and wireless – are transforming communications throughout Europe.

Whatever the future brings will probably come from Lucent Technologies too. After all, over the past 128 years Bell Labs, our R&D division, has developed innovations that include the transistor, laser and cellular technology, even the communications satellite. And eight of our scientists have been awarded the Nobel Prize – a legacy of innovation that continues with 3 new patents every working day.

Who's responsible for this record of achievement? Consider that I have 15,000 colleagues working at Lucent across Europe – and 120,000 worldwide. Each of us is aiming to make the breakthrough that takes communications to a new level. That's why I know Lucent will change the way you communicate. Get ready for take off!

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INTERNET COMMERCE: EUROPEAN PERSPECTIVE • By Geoffrey Nairn

Wanted: buyers not surfers

Electronic commerce has vast potential and smaller companies are eager to get online. But unless issues such as security and payment systems are fully addressed, then market growth will be constrained

The Internet means many things but for Europe's 17m smaller businesses it signifies a golden opportunity to compete on equal terms with bigger competitors in a new virtual marketplace.

The number of online users grows each day – 100m are predicted for the end of this year – and for small and medium-sized enterprises (SMEs) the Internet seems to provide a cheap and painless method of rapidly growing their business.

However, things are not that simple for while the number of online buyers is rising, competition is also growing for what is still a small market, particular outside North America. "Internet commerce badly needs consumers, not simply surfers," says the European Information Technology Observatory, which represents Europe's IT industry.

It predicts revenues generated by sales and advertising on commercial websites in Europe will grow almost 240 per cent this year to Ecu6.5bn ($7.08bn). That may seem large, but a comparison puts things into perspective. Europe's entire e-commerce market is equivalent in size to the turnover of just one large retailer, such as Continent, the French hypermarket chain.

"The Internet clearly sells only a minute portion of the total goods and services sold around the world," says management consultants Fiona Czerniawska and Gavin Potter in their recently published book, *Business in a Virtual World*.

Another problem is that most small companies give little thought to how they will encourage visitors to their online store. Today there are thousands of e-commerce sites, making the Internet "considerably more competitive than your local shopping mall or high street," say the authors.

"Passing trade on the Internet is close to zero," they say, and anyone expecting thousands of eager buyers to accidentally stumble on a site "will almost certainly fail."

So why set up an online store if the chances of success seem so small? According to the above authors, the advantage of the Internet comes less from trying to replace existing sales channels – creating a website that resembles a virtual shop – but rather using the Internet as a complementary channel or to experiment with new ideas.

"Simply translating your physical marketing channels to the virtual is not going to generate additional sales," they say.

Cedlerts Fisk, a small Swedish luxury food suppler, offers a good example of how the Internet can be put to more imaginative use. Traditionally selling just to restaurants, managing director Christer Oholm hit upon the idea of using the Internet to also sell lobster and salmon to consumers. "I was convinced that it could provide us with a low-cost and highly practical means of reaching new markets," he says.

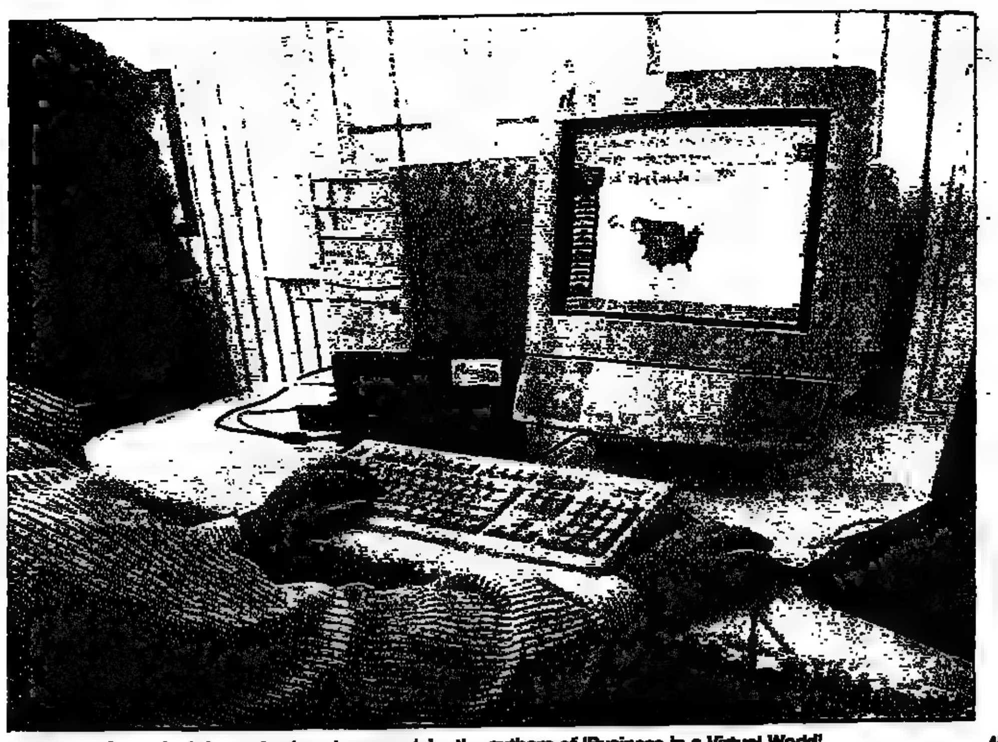
The site was built using IBM's Net.Commerce software. Selling lobster over the Internet has its problems and Cedlerts Fisk had to design special packaging and ensure delivery within 24 hours. But Mr Oholm says the effort is worthwhile as the Internet has become a powerful marketing and sales tool for the company that can, for example, learn customers' preferences and track buying patterns.

Internet commerce poses many challenges for SMEs – and not just those selling seafood. The European Commission recently published a set of guidelines to encourage European SMEs on to the Internet and spell out the problems they face. The EC is concerned that the potential of e-commerce is not being fully realised by the 17m SMEs in Europe. "E-commerce clearly has a great deal to offer SMEs but there are issues which will need to be resolved if this is to be achieved."

The report breaks down the issues into four broad areas: product information and marketing, trust and security, payment systems, copyright and consumer protection.

In the first case, the Commission hopes to make it easier for SMEs to be found on the Web by introducing a standard system for classifying companies and products in online databases and search engines.

The problem of trust has traditionally been seen one of the biggest hurdles to doing business online and it particularly affects SMEs, the Commission claims. Solutions based on digital certificates have existed for some time but they are often incompatible and there is an added problem in Europe as the necessary infrastructure of Certification Authorities (CAs) is immature. To achieve the goal of authenticated commerce within Europe requires that links be built between the national CAs of European countries. Today, there is no guarantee that a certificate issued and legally valid in Portugal will be recognised when the user attempts to buy from an online store in France.



Passing trade on the Internet is close to zero, claim the authors of 'Business in a Virtual World' AP

Without these "cross certification" links, the consumer faces the humiliation of rejection and the trader loses a sale. Payment systems are a more mature Internet technology, but incompatibilities persist.

For SMEs, the biggest hurdle is the fear of losing what may be a significant payment if something goes wrong. The guidelines recommend that payment system providers should bear the major share of the risk to encourage SMEs to accept e-payments.

The final item that the EC wants addressing on its e-commerce agenda is the legal minefield that currently surrounds e-commerce. "There is a danger in the new virtual environment that legal uncertainty will arise about which member state is competent and which law applies."

Copyright legislation needs to be updated to protect electronic works, the EC says, and it wants purchases made on the Internet to enjoy the same validity and consumer protection as those made on the High Street.

The e-commerce market has enormous potential and European smaller companies are as eager as anyone to get online. But unless these non-technical issues are addressed, market growth is likely to remain constrained.

Data gathered at the checkout: Safeway has 400 stores, linked by a satellite network to its data centres. The aim is to analyse what individual customers are likely to buy

ANALYSIS OF RETAILING PATTERNS • By Philip Manchester

Customers in sharper focus

In seeking ways to respond to customer demand, a leading supermarket chain is moving from information management systems to knowledge management

The use of advanced IT tools for demographic analysis of customers has brought significant benefits to retailers. Comprehensive databases of customers' shopping habits have enabled retailers to make sure they stock the right products and get them on the shelves at the right time. Not only can stock levels be optimised, but customers buy more of what they really want.

But now that most big retailers use some form of demographic analysis, knowledge about groups of customers is no longer enough: "We must be able to get down to individual customers and be able to serve them more precisely," says Mike Winch, IT director at Safeway supermarkets in the UK.

With a database covering over 8m customers, this is no easy task. Safeway is the third largest supermarket chain in Britain with annual sales of $10bn. It employs 70,000 people at more than 400 stores across the UK.

"We have changed the way we manage our business from looking at products to looking at customers. We need to know about every item in their shopping basket – and this means using very advanced IT systems both to collect data from the point of sale and to analyse it," Mr Winch says.

Loyalty cards are, of course, the key to understanding customers' buying habits. Safeway was among the pioneers of loyalty card schemes: "We have been involved in collecting customer information from loyalty cards since 1990 when we introduced our first scheme. We quickly understood the value of the information we could get from them – but recognised we needed to go further," he explains.

A long-time IBM user, Safeway used IBM's mainframe database DB2 to build the customer information application to support its loyalty scheme. But, as the application developed, Safeway became concerned that a mainframe-based system might not be able to offer the flexibility it needed.

"At the end of 1995 we started to get nervous about the mainframe and looked at alternatives such as Sequent and Teradata. We wanted more flexibility to expand the database. But it became clear that we could apply DB2 as an enterprise server and use IBM's data mining tools to find the information we wanted."

Data mining is a technique for analysing large volumes of data. The data volumes Safeway has to deal with put the need for flexibility into perspective. With its 400 stores linked via a satellite network to two data centres, Safeway has to manage a staggering 30 gigabytes of data generated by loyalty card shoppers at the point-of-sale terminals. But this is only the first stage in the process of turning raw data into useful sales and marketing information.

"We keep data on customer transactions down to product level and we need ways to understand the data so we can meet their requirements," Mr Winch says.

This is where Intelligent Miner – IBM's "data mining" tool kit comes in. Data mining tools analyse large databases and tease out valuable information such as sales patterns. They enable an organisation such as Safeway not only to work out what products a customer buys – but also the kind of products that might appeal to them.

"Our competitive advantage is linked to what we know. So we have embedded data mining in the very fabric of how we do our business," explains Mr Winch.

As a result, Safeway is, for example, able to send out carefully targeted mail shots to customers about products it knows will interest them.

The improvement in sales from mail shots is easy to measure, he says. "We have taken segments of our customer database and sent mailshots to some customers and not to others. We could see the benefits of the mailshot immediately and have been able to measure the payback. And these are large numbers so they are statistically relevant."

Safeway expects to be able to build upon the work it has already done on its customer information databases. Knowledge management is the next obvious step that it can take to improve its sales and marketing operations, says Mr Winch.

"Even though we know a lot about our customers, we think we are only a small part of the way that we can go – and we are constantly getting new insights in to the data and our customers. The next step is to move from information management to knowledge management. We are already trying new ways to respond to customer demand – hence our 'Shop and Go' approach."

The Shop and Go scheme allows customers to scan the bar codes on their own shopping using a portable scanner. Not only does this reduce the number of till staff needed it also saves customers' time because their goods do not need to be unpacked and repacked at the till.

As the retail sector continues to become more competitive, Safeway is confident that its advanced IT tools will let it keep ahead of the game – although, along with its competitors, this will rely upon finding ways to innovate.

BRITISH COMPUTER SOCIETY AWARD

The search is on for innovative IT teams

Nominations are sought for the next BCS award for information systems management

The annual UK award for information systems management has opened for nominations.

The prestigious IS Management Award is run by the professional body, the British Computer Society, in association with the Financial Times, and sponsored by Blue Circle Industries, Deloitte & Touche, KPMG Impact, Unisys, and Woolwich, the financial services group.

The award recognises achievement, improvement and innovation in IS management in the UK.

The judges look in particular at impact on business performance, the relationship with end-users, and the management of development or operations.

The award typically goes to a team rather than an individual. Past winners report benefits in terms of heightened status for the IT department and even for the entire organisation.

The 1998 winner, Halifax Share Dealing, developed a unique combination of IT systems to enable it to handle share trading for two million customers in its first week after Halifax Building Society converted to a quoted company. Key to the success was the relationship fostered between IT, end-users and IT suppliers.

Managing director Sue Concannon said the award gave deserved public recognition to a critical and highly visible project.

The award has had similar impact at other winners. The London Ambulance Service found the award increased morale when it won in 1997 after a new team ended 10 years of project disasters by successfully developing a command and control system. IT director Ian Tighe said: "The control room was buzzing for two weeks after the award ceremony, and it was great to see people holding their heads high after so many depressing years."

When P&O European Ferries won in 1995 after a massive business change project, IT director Nigel Powis said: "The profile of IT in the company has been enhanced, suppliers have proved eager to associate themselves with our success – and the award has helped in recruiting quality staff."

Eagle Star Insurance, the 1996 winner, reaped commercial rewards, with sales consultants using the award in promotions.

The other past winners are Ford; Tesco, the supermarket chain; and Cheshire County Council.

How to enter

The entry procedure starts with a simple nomination form, due in by December 18.

Selected entries are investigated by a panel, and three finalists make a presentation to a judging panel of senior executives.

The award will be presented at a prestige dinner, when the editor of the Financial Times, Richard Lambert, will be the guest speaker.

Nomination forms are available from Maria Teresa Muir on (01793) 417417; fax (01793) 417432.

E-mail: mtmuir@bcs.org.uk

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COMPUTER TELEPHONY INTEGRATION • By Michael Dempsey

Screen-popping brings productivity benefits

Suppliers of CTI systems are experiencing phenomenal growth

Language Line, a company with 18 staff, based in North London, has a simple selling proposition. It puts travelling businessmen together with linguists who can speak the right language for their location. It does this over the telephone, but has doubled its turnover from £1m to £2m in the last 12 months by uniting its phone system with a computer application in the computer telephony integration (CTI) family.

Language Line staff wrote much of the software that multiplies the impact of every phone call they receive, using a programme called Mediapath to govern their specific application.

Bruce Cadbury, managing director, explains that Mediapath, from telecoms giant Mitel, acts as management software, offering a familiar Windows-type interface while linking phone and computer. "It enables us to plug our own application into the phone system. Everything runs on a dedicated server."

The cost of this computer hardware, sourced from Digital, was included in Language Line's £100,000 investment in the project.

"Mediapath provides the operating environment in which we can write applications software," says Mr Cadbury. With customers such as British Gas, Language Line has to respond to immediate requests for live translation services.

An executive will call Language Line from a mobile phone when he encounters problems at a hotel check-in desk. The Language Line operator sees a screen of data on that corporate customer and its relevant history. This information is prompted automatically as the CTI application recognises his phone number.

Bruce Cadbury, head of Language Line, has seen a remarkable rise in turnover

"Once we've identified them as a customer, we select an interpreter from our database," says Mr Cadbury. This process takes between 20 seconds and two minutes, and involves pulling the right name from a list of around 3,000 interpreters. Some of Language Line's larger customers can dial a specific number to gain access to a particular language.

"We know, for example, that it's a particular company and they want Japanese," says Mr Cadbury. Russian, Polish and Czech speakers are much in demand from companies opening up business in eastern Europe. The technical process here is one of database retrieval: the call centre is integrated into existing information and lets Language Line make more use of it.

The effect of the Mediapath installation has been to multiply the productivity of all of Mr Cadbury's staff. "Anybody in the organisation can respond to a sales call because they have all the information about the customer up there on the screen."

This feature of CTI is known as screen-popping, and appears to have made a dramatic difference to the lives of sales and marketing staff. The Language Line system has simplified Mr Cadbury's technology inventory by plugging phones straight into the Digital server. "Everything runs off the server – there's no switchboard or local exchange".

For Mr Cadbury, the remarkable rise in his turnover in the 12 months since the Mediapath installation went live is proof that CTI delivers real benefits. "I can double my turnover without doubling my staff."

The financial rewards for effective use of CTI are mirrored in the fortunes of companies turning out products for this marketplace. According to Ovum, the research group, the number of CTI-enabled workstations worldwide will grow from 10m in 1999 to 40m by 2002.

Applix, a $50m Boston-based software house, is just one of the suppliers experiencing phenomenal growth in this sector. Typical Applix customers already keep masses of data in sophisticated database products from Oracle.

Applix Enterprise, the company's core product, is a suite of software focused on the job of "digging down" into customer databases and integrating that data with sales and marketing systems. According to Tony Martinez, director of product marketing at Applix, 80 per cent of his customers are looking for CTI applications when they spend upwards of $25,000 on Applix Enterprise. And sales of this product are estimated at $30m in 1998, a dramatic increase on 1997 sales figures of $17m.

Customer service is the driver behind this phenomenal growth, says Mr Martinez.

Advanced communications centre: more than 250,000 calls are made or taken each month on behalf of clients who have outsourced their operations to the Merchant Group's 450-seat communication centre, based at Milton Keynes in the UK – and one of the most advanced of its kind in Europe. The group's blue-chip clients come from the financial services, technology, utilities and pharmaceutical industries

Fuelled by fear of customer attrition as businesses jostle to provide better telephone support, US and European companies are enhancing existing call centre technology. The rise of marketing via the Internet means that phone services and Internet sites often have to be managed in tandem.

The next logical step

Creating a unified message via screen-popping and the mass of support that comes with CTI is the next logical step for companies that want sales and marketing departments to share information and now need to tie the Internet into that equation.

Kingston SCL is an Applix user that employs CTI software to provide intensive support for a very specialised product – Kingston SCL sells telecoms billing software, servicing an international customer-base, including mobile phone operators in Finland and Hong Kong.

This is complex software operated by highly technical staff, so if Kingston SCL receives a call for support, the problem will not be solved by a quick reference to the user-manual.

"We receive a low number of calls, but the ones we *do* get are of high complexity," says Steven Appleton, customer-support manager. "The problems we address are not dealt with by two-minute answers."

His Applix installation has been configured to filter calls as they come in, capturing information about each incident and classifying it by order of importance. Calls to the support line are coded and support is given a priority according to customer need.

For Mr Appleton, CTI has done away with an old system of telephone support staff constantly inventing classifications for calls and replaced it with scientific measurements.

"Our support was a blunt instrument. Now it's finely tuned," he says.

Kingston SCL has succeeded in integrating a CTI product with its own working processes. But not every business has this skill or luck.

Mr Neil Dewar, a telecoms consultant with PA Consulting in London, sounds a note of caution amid the current CTI euphoria: "Everyone's interested in it, but there are as many products as there are customers. The user has to do a lot of work to understand what it can do for his company.

"Integrating one product with your phone and computer systems is a challenge. There are big benefits to CTI, but only if you introduce it properly."

CUSTOMER RELATIONSHIP MANAGEMENT

Sales teams need convincing, too

New customer relationship management systems go far beyond old-style sales force automation

While today's software systems can help improve the management of customer relationships, the sales team may initially be less than overwhelmed by the advantages of new methods, as a leading telecom company discovered.

British Columbia Telecom (BC Tel) is one of Canada's largest telephone companies and for many decades held a virtual monopoly on the vast majority of long distance traffic in Canada's most western province.

In recent years, however, the company has faced increasing pressures as deregulation of the Canadian telephone market opened BC Tel up to competition – with leading competitors, such as AT&T Canada and Sprint Canada, jumping into the fray.

As a result, the company has had to go from a business model that assumes almost anyone with a telephone in the province is an automatic customer to whom it merely has to sell the maximum number of services, to a model where it must compete for customers.

This new competition takes place not only on price and service, but also on the ability to build strong links with customers.

According to Drew McArthur, BC Tel's business transformation manager, the company recognised that in such a competitive environment, it is the level of relationship with users that determines whether or not BC Tel retains the business.

In many cases, competitors can find ways to match BC Tel's prices and services, but Mr McArthur suggests that if BC Tel can do a good job at building better on-going working relationships, then customer loyalty will follow.

To help with this task, Mr McArthur turned to Pivotal Software of North Vancouver for the supply of customer relationship management (CRM) software.

"To increase our advantage in the marketplace we required the ability to capture and share more customer information," he adds. "Not only do we want to retain and win back customers; our objective is to help them grow their business."

BC Tel aimed to automate and streamline its business processes with mobile computers and Pivotal's CRM solution. Field sales personnel and sales management can now track contacts, customers and opportunities, plus manage personal and team activities, such as appointments and "to-do" lists.

By using the system to track all meetings with customers, allowing central access to such information (where appropriate) by other sales staff, and track successes and failures, BC Tel gains "very specific feedback."

One reason for seleceting Pivotal Relationship was the facility to customise it to track information on long-distance customers. The company employed a third party, Burnt Sand Solutions, to carry out the customisation. The end result has been improved sales and customer retention.

Sales staff can quickly react to competitive situations – and errors have been reduced by 25 per cent because of the shared customer database and built-in document generator, he says. In addition, the reporting tools also allow sales managers to devote more time to coaching and improving sales techniques – rather than filling out forms and writing long-winded customer contact reports.

But he admits that it has not been completely smooth sailing – he had not anticipated the initial "underwhelming" response of the sales force to having such a solution introduced.

"We had expectations that the sales people would have had more of a propensity to learn how to use it," he adds. "The challenge is to help sales reps understand the advantage to themselves because a lot of the benefits, if used well, are advantages to the corporation. While it gives us better customer information, sales reps also gain a clearer view of their progress – and it helps to provide an wider opportunity to coach and monitor the sales team."

Clearly, users of CRM solutions must help their sales teams understand that these systems go far beyond the simple name, addresses and notes databases of traditional contact management applications. They are designed to integrate information about transactions with call centre applications and accounting software.

Norm Francis, president of Pivotal Software, says the company has more than tripled in size in the past 18 months, winning business among large corporate customers and moving into larger offices to support them.

But many vendors in the industry are attempting to put a new face on old sales force automation technology instead of focusing on building solutions that enable companies to build and sustain "great customer relationships," he believes.

Meanwhile, suppliers gained a large new competitor lastbmonth when IBM announced that it was forming a new software division to service the CRM market.

Geoffrey Wheelwright

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ve IT teams

Hand-held computers become smaller and smarter

The demand for specialist devices will lead to further fragmentation in the market that ranges from pocket organisers and palm-tops to 'smart' mobile phones linked to the Internet, says Christopher Price

The hand-held computing market is in a state of flux. Strong demand from both the consumer and business markets has led to more products from more manufacturers, causing some established operators to suffer slower growth.

At the same time, technological advances, which promise smaller, more powerful and more flexible devices, hold out the prospect of lucrative opportunities to innovative and nimble operators.

The situation is reflected in the latest industry figures which show about 2m hand-held units shipped last year, a figure forecast to rise by 50 per cent this year and reaching around 8m units by 2001, according to Dataquest, the market research group.

Nothing exemplifies the current state of the market more than the experience of Psion, the world's biggest hand-held computer manufacturer.

Three months ago, the UK group made the latest in a series of gloomy trading statements about the state of the market. It warned that future revenues would be hit by a combination of pricing pressures and competition from products utilising the latest Microsoft CE operating system.

However, rather than fall on the news, Psion's shares more than trebled as the company also revealed the formation of a new venture which would licence Psion's software for a new generation of hand-held devices.

The new company, Symbian, teams Psion with Ericsson, Nokia and Motorola, which, between them, account for more than three quarters of the world's mobile phone sales.

Symbian intends to develop Psion's EPOC operating system, which is used to power the company's range of hand-held computers, as the industry standard for the new products. These will marry the power of the palm-top computer with the convenience of the mobile phone.

This has long been the holy grail of both the mobile phone companies and the computer manufacturers. Nokia has already attempted it with the introduction of its 9000 range, combining an organiser and phone.

However, Symbian believes the focus of the four constituent parties on one operating system will accelerate the development of a wide range of applications.

Analysts say the mobile phone will become "smart", having the ability to send and receive data. It will also be able to download from the Internet, as well as store large amounts of information.

Developments in hand-held computers will see it quickly become wire-free in its ability to send and receiving electronic mail from any location within a cellular transmission area. Early in the new millennium, the development of a new high-capacity cellular network will allow the transmission of video.

Symbian intends to charge a licence fee of $5 per smart phone and $10 for other communications devices in a market forecast to be selling 70m units a year by 2002.

However, the Symbian formation has another important ramification. By establishing the industry standard on Psion's EPOC operating system, it mounts a serious threat to Microsoft.

The world's biggest software group has made no secret of its desire to repeat its success in the personal computer market through the introduction of its Windows CE operating system in consumer electronics.

Analysts say Nokia, Ericsson and Motorola do not want to be subjected to the same kind of pricing pressures that has been such a prominent feature of the PC industry, where Microsoft software dominates.

The companies agree. "We do not want to become mere box shifters for Microsoft," says the director of one of the mobile phone companies."

In this regard, the three telecoms groups had little alternative but to turn to Psion. While the three had all developed and used their own operating systems, none had the potential or provided the platform afforded by EPOC.

Conflict among the suppliers

The move is likely to accelerate the trend of the past two years which has seen the hand-held computer market fragment. This has been due to the market's growing sophistication which has addressed the demands of buyers with different requirements of their hand-held devices.

For companies – such as Psion – addressing the high end of the market, with its sophisticated Series 5 computer, this has brought it into conflict with the growing number of suppliers with computers utilising Microsoft CE, such as Casio, Hewlett-Packard and Sharp.

Price has also become an issue as the high end of the palm top market has touched the bottom of the laptop computer range. With an increasing number of products and rising prices, customer confusion has added to the manufacturers' problems.

In contrast, the personal organiser market has been buoyant and 3Com's Palm Pilot its chief beneficiary. The popularity of the device, which uses a stylus to input information, has not been lost on other manufacturers.

As with the high end of the business, the organiser market is beginning to attract similar competition. Microsoft is using its CE platform for its Palm PC, a new operating system from Microsoft which has been licensed to several operators, including Casio, Philips and LG Electronics.

Meanwhile, rapid technological advances in the components market are likely to accelerate the trend towards smaller, faster and more specialised hand-held computers.

International Business Machines last month announced a breakthrough in microchip technology. The US computer group's "silicon on insulator" (SOI) technology reduces the amount of power that silicon chips need to operate.

The development should contribute to the genesis of a new class of portable devices, according to the company. In particular, IBM believes the development of a true pocket-size PC will now be possible.

SOI chips will be 30 per cent more powerful than existing products. Such an increase will accelerate the development of demanding computer applications, such as voice recognition, and the lower power requirements will allow battery-operated devices, such as portable telephones, to run for much longer.

And in an echo of the Symbian venture, IBM says SOI will open up the possibility of combining high-speed computing with wireless telephony to create pocket machines that link to the Internet, giving access to e-mail and the world wide web. The first SOI chips could be commercially available next year.

All the new developments point to ever greater integration, both in the computer market, and the communications field. If the edges of the different market segment become ever more blurred, one thing is clear: hand-held computers are set to get smaller, smarter and more specialised.

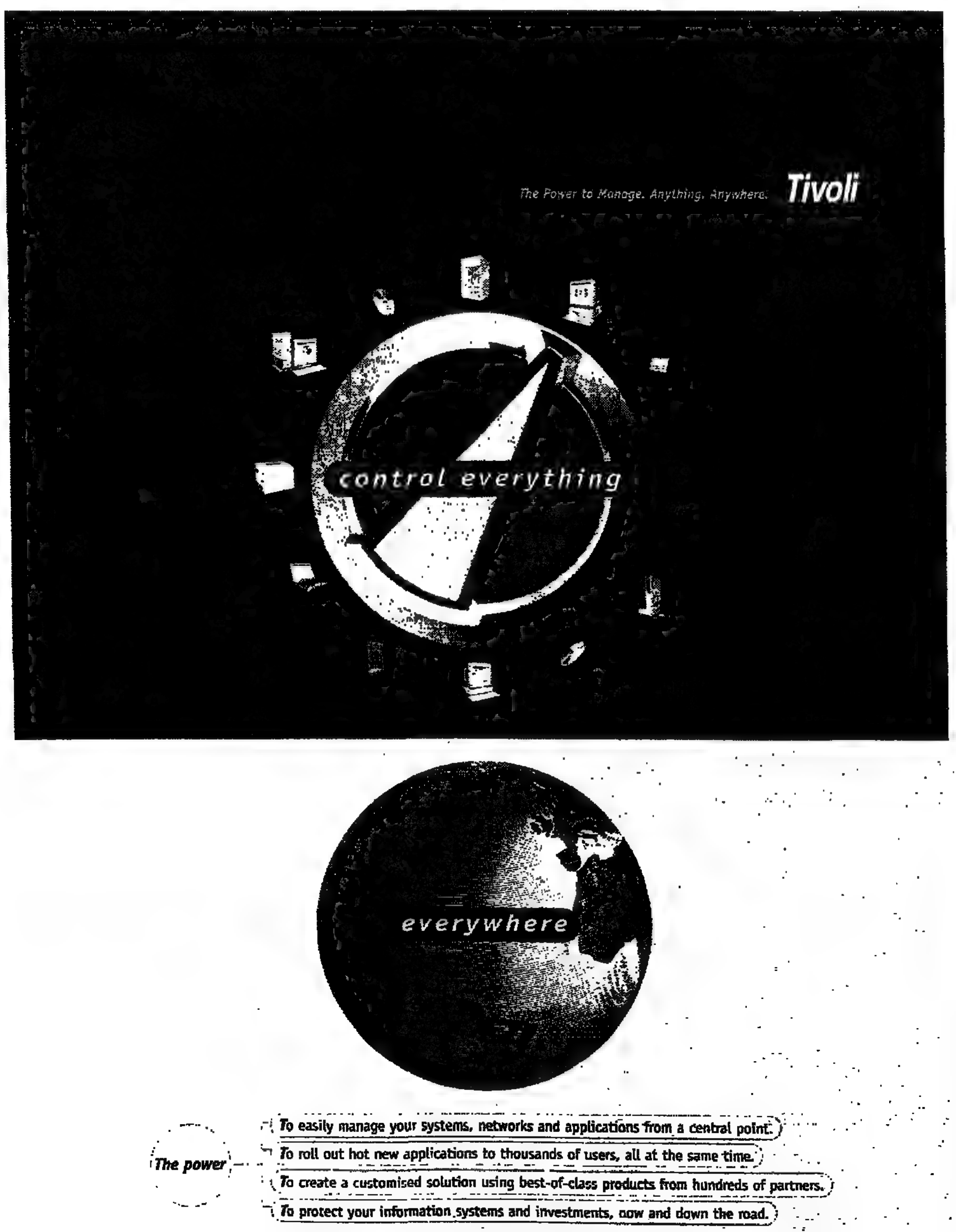
Larger than life: using a replica of a hand-held PC and explaining the merits of Microsoft's CE operating system, Astrid Mai, right, and Christian Schroeder make a presentation at this year's CeBIT computer trade fair in Hanover, Germany, which was attended by more than 600,000 people AP

FT IT

More power in the palm and the pocket

Here and on the following four pages, FT writers highlight advances in hand-held computing

Smartphones report: page 19



PERSONAL ORGANISERS • By Jola Shillingford

Spoiled for choice

Even better machines are on the way, with improved screens and keyboards

Can you be organised without a personal organiser? Not according to the manufacturers. They have positioned the hand-held devices as portable replacements for the address book, diary, rotary card index, notepad and spreadsheet. They can even wake you up in the morning.

Below, we look at hand-held and other computers running Windows CE and ask whether there is anything to choose between them. Or whether you should opt for one of these machines at all.

Howard Seabrook, a research director at the Gartner Group, says that though we tend to think of Windows CE (a stripped-down version of Windows), as an operating system for personal organisers, CE is part of a much broader strategy.

He says Microsoft plans to use Windows CE in three areas:

☐ First, the company wants CE to be used in embedded processors (or chips) for industrial use. "Microsoft is very excited about the possibilities," adds Mr Seabrook.

☐ Second, it wants CE to be used in consumer and home products, such as televisions, video recorders, and interactive TVs.. In the shorter term, it will be working with Sega to produce a new games console, running CE. It will also be working on interactive television design with Thomson Multimedia of France in which it has taken a stake.

☐ Third, Microsoft is using CE in personal organisers and this is the area where CE is best known. Makers of CE computers include Hewlett-Packard, Philips, Compaq and Sharp.

There is also a Palm-sized PC made to a Microsoft design and manufactured by five companies. This has no keyboard: input is via a pen-shaped stylus and handwriting recognition software. "Its direct rival is 3Com's (non-CE) PalmPilot, which is more successful because it has better software," says Mr Seabrook.

Most of the hand-held CE machines look somewhat similar and run many of the same applications. But there are a number of factors to consider when choosing a machine: communications, screen, keyboard, price, software, security and data synchronisation.

If you want to use the machine to send and receive electronic mail or surf the Internet, choose a machine with a built-in modem, such as one of Compaq's models. Using a modem in conjunction with an organiser can quickly drain its batteries unless the modem is designed specifically for the organiser.

Screens for CE machines vary. The most obvious difference is between colour and mono screens. "Colour looks good but you will only get three-and-a-half to four hours' use out of a colour organiser as opposed to two or three days with mono," says Seabrook.

Many CE machines, such as the Hewlett-Packard and Philips ones have a backlit option, which can make them more readable. Philips' Velo 500 machines support 16 shades of grey in 640 x 240 pixels.

Other factors to consider: check the "feel" of the organiser's keyboard before you buy. This is one feature of organisers that varies a lot. Usually, the more pocket-size the machine, the less likely you will be able to touch type on it. If you really plan to do a lot of typing, then a wise choice might be a Toshiba Libretto, a fully fledged PC running Windows 95 but smaller than a standard notebook PC is probably better.

Most CE machines come with Microsoft Pocket Word, Pocket Excel and Pocket Internet Explorer, as well as a contacts database, diary, international clock, alarm clock and calculator and electronic mail. Some CE machines also offer extra software. The Philips Velo 500, for example, includes Windows CE 2.0, Velo voice memo, a database and data transfer to PCs and mobile devices via a wireless infrared link.

"For the business user," Mr Seabrook believes, "there should be effective passwords which make the device difficult to get into.

"When a device is tampered with, data should be protected or erased. But once you start to look for good security on an organiser, your short list gets very short indeed."

The ease of synchronising data between an organiser and a PC is important in case an organiser is lost or damaged: There is some loss of functionality when you convert between Windows 95 or 98 and CE. Users will find they do not have that nifty Excel function they have on the desktop – or that they've lost some of their Word formatting.

Companies should also consider the potential support burden to the IT department of having to support yet more machines and operating systems, says Mr Seabrook. Some may, however, like the idea of a CE machine that is built into a phone, and some are under development. Non-CE phones are available from Nokia, Alcatel and Philips.

Microsoft's Windows CE also faces competition from Psion, the UK personal organiser company which has licensed its operating system for use with mobile phones from Ericsson and Nokia and other portable devices.

Looking at the overall market, Mr Seabrook has not been won over by the benefits of electronic pocket organisers. "If I can't do e-mail exactly the same way as on my PC, I'm not interested. I also want a calendar that someone else can modify from my office that synchronises easily with a personal organiser.

"When you look at the £200 to £700-plus price of a CE machine, plus £150 for a modem, you can't help thinking what else you could buy for the money," adds Mr Seabrook.

However, converts to CE include Andrew Hawkins, director of corporate finance at Panmure Gordon, who uses his colour Hewlett-Packard 620 organiser for contacts and diary, Excel and Word.

He has just bought the latest mobile phone from Ericsson that has a built-in modem with an infrared link, so no physical cable is needed between organiser and mobile. Mr Hawkins says: "I use e-mail and the Internet all the time when I'm travelling. I just press a button, put the phone down beside the CE machine and I'm communicating. It's brilliant."

He also has a (non-CE) credit-card sized device – the Rolodex Rex – that holds his most important contacts. Stockbroker Jim Ross likes the flexible, easily accessible contacts database on his HP CE machine and the compatibility with Excel and Word on his personal computer.

"The frustrations are that it is slow and that it doesn't have all the spreadsheet functions I would like," he says. Meanwhile, better machines are on the way. "Slightly bigger machines are coming along, with better screens and keyboards," says Mr Seabrook. "They'll be smaller than notebook computers and run CE 2.0 and Microsoft is 'busy talking them up'."

The next release of CE will offer easier data synchronisation and improved performance, though it is up to a year away, he adds. "The reluctance among users to carry around a map in their heads of lots of different devices, may be what will champion Windows CE in the end."

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FT IT

More power in the palm and the pocket

Here and on the following four pages, FT writers highlight advances in hand-held computing

for choice

PALMTOP APPLICATIONS • By George Black

IT managers are taking note

The latest palmtop devices are becoming as useful as notebook computers as portable systems begin to converge, along with mobile phone systems

Information technology managers are starting to look seriously at how palmtop computers could fit into their plans.

The palmtop market is growing rapidly, as the devices have become more powerful and more uses are being found for them.

They began as basic organiser devices, mainly for storing phone numbers and diaries, and have evolved in the past few years into much broader business tools. Most palmtops, other than Psion's, are now designed as companions to personal computers, able to synchronise their data with the PC automatically, rather than as standalone devices.

The smallest, such as 3Com's PalmPilot, are sometimes confusingly classed as palm-sized computers, as they are small enough to fit into the palm of the hand rather than like most covering the palm.

The PalmPilot has been the biggest success of the last year. Aimed at users who do not do a lot of data entry, it has dispensed with the conventional keyboard and adopted pen-based input and single-key operations.

Input is by a shorthand language which is easy to learn and more reliable than most hand-writing recognition systems, or by a single touch of four keys which give quick access to a narrow range of functions.

This simplicity helped the company to reduce the size of the machine and has been one of the main reasons for its success, according to Neville Street, general manager for 3Com's Palm Computing subsidiary.

Most of the other manufacturers have been competing with slightly larger machines, many of which are now based on Microsoft's Windows CE operating system. In this area, Hewlett-Packard is the leader.

The growth in the market – 65 per cent last year, according to Dataquest – has been driven mainly by individual enthusiasts, but increasingly large companies are looking at the possibility of standardising on palmtops for certain sorts of usage. Cost of ownership would be much lower than for notebooks or laptops.

IT managers need to take control of the purchasing because about a third of the palmtops which are bought from retail stores are used by business people and paid for on their expense accounts.

Companies are beginning to take palmtops seriously, partly because they believe the devices are becoming as useful as notebooks and partly because they can see the beginning of convergence between these devices and mobile phones.

The corporate market for palmtops has yet to develop, but somef large UK companies and public sector organisations are engaged in trials, and the vendors are hopeful that some big contracts will soon be signed.

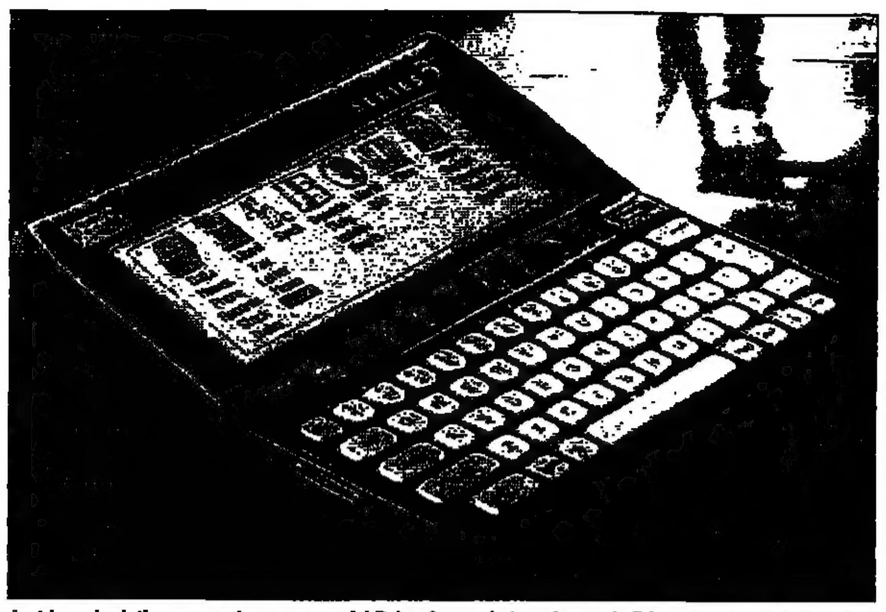
The trials are taking longer than expected because IT managers are wary about investing until they are persuaded that the technology is stable and that they can manage it effectively.

Co-op Bank is trialling Hewlett-Packard palmtops for customers of its Internet banking service.

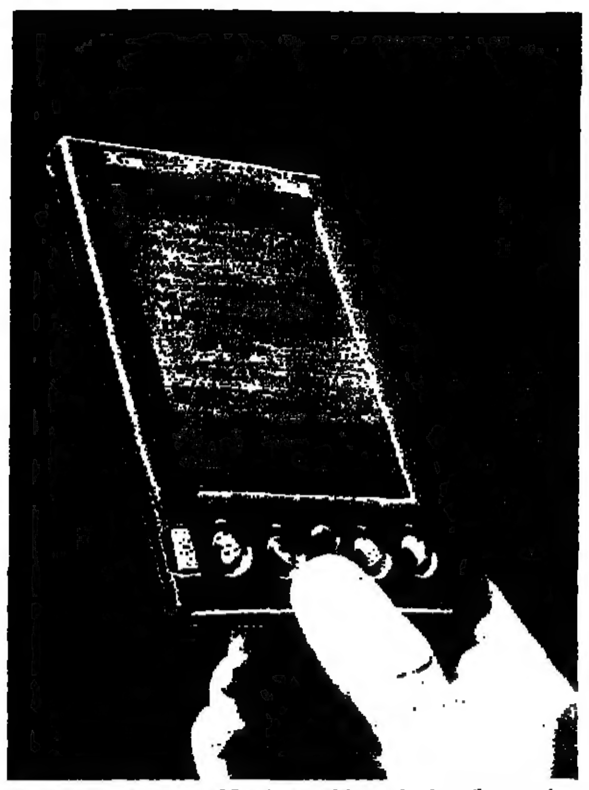
Surrey Police has been testing Sharp palmtops for access to its intranet, says Sharp's product marketing manager, James Johnston. This could allow police on the move to check criminal records and car ownership.

Retailers are testing ruggedised palmtops as scanning devices for use both in their stores and in their warehouses.

There is also a large potential market in the healthcare sector. The French health service is testing IBM Workpads, based on 3Com technology, for hospital doctors and nurses to access patient records from smart cards.



Just launched: the new and more powerful Psion 3mx palmtop aims to build on the award-winning Series 3 range which has 1.5 users worldwide



Big success of the year: 3Com's PalmPilot series has dispensed with the conventional keyboard

In most cases, palmtop devices will complement notebooks rather than replace them, argues Claes Bergstedt, international sales director for Psion. "Palmtops will go everywhere with you, whereas notebooks will not because they are too big and heavy," he says.

But HP's handheld business manager Dorothy Colton points out that a pharmaceuticals company has recently given its executives palmtops to replace notebooks so that they can access company data from different offices in their own buildings. However, a mass switch from notebooks to palmtops seems unlikely. The pattern of usage is very different. Notebooks are typically accessed only once or twice a day, but for long periods; palmtops are accessed 15 to 20 times a day, but usually only for a minute or two.

But palmtops may still create a huge new market. There are very many mobile workers – air stewardesses, financial services salespeople, social workers, to name a few – who at present do not use notebooks and whose employers will not buy them because of the high cost. For this reason, the vendors say their chief objective must be to persuade people to switch from paper notebooks, not from notebook computers.

The limiting factor in the market is not the price or the usability of devices, but the range of applications available, say the analysts. Vendors have recognised this fact after their products were slow to take off when first introduced a couple of years ago. Since then, they have been working on delivering access to corporate applications.

Leading database companies such as Oracle and Sybase have been tailoring their software so that palmtop users will be able to gain access to corporate data from their machines. Business applications vendors are starting to do the same.

3Com expects to deliver applications such as Lotus Notes, Oracle Financials and SAP R/3 to its palmtops in the next few months.

Palmtop users will not be given the same ability to interact with the systems as a desktop user, but they will be able to extract the data they need while on the move. This could be just what is needed to persuade big companies to invest.

□ *The new Psion Series 3mx, pictured above, will sell in the UK at £270 and offers faster access to personal information. It has a backlit screen and 2MBs of memory capable of storing 500 pages of A4 text or thousands of addresses, appointments and 'do do' lists. The 3mx can also be linked with PC and Apple Macintosh machines. Extra software titles range from route planners to expense trackers, plus translation and games facilities.*

PALMTOP SALES • By Michael Dempsey

Enthusiastic reception

The look and feel of palmtops – known in the industry as 'the form factor' – are key issues for would-be purchasers

Gernot Radl has cause to smile. The Munich-based European manager for Compaq's C-Series palmtop has seen 10,000 C-Series machines sold in the four weeks since its European debut in May.

Mr Radl admits that this enthusiastic reception for the product owes more to activities of a rival company than the need for palmtops compatible with the Windows CE operating system. "Psion raised the profile of this market," he says.

The British maker of the Psion organiser has created a mature market for the palmtop computer, particularly in the UK, Germany and France.

"People in the US are into extremely small gadgets or very large laptops," says Mr Radl, making the corporate market in Europe a top target for his division of Compaq.

Mr Radl has been busy analysing the sales figure of 10,000 units in one month. He concludes that this is a very different marketplace from Compaq's traditional hunting ground of PC sales to large organisations.

"The insurance industry is emerging as a key market, and what they want are specific solutions, often for small tasks," he adds.

Size and total cost of ownership come next on the corporate tick-list, Mr Radl observes. "With a laptop at $2,000, but a palmtop costing $1,000, you can equip two people for the price of one."

The corporate buyer receives more than a cheaper machine, however – he gets something so small it doesn't act as a barrier between his sales force and the customer. "In some situations, such as selling financial products, the open cover of a laptop computer is perceived as a barrier between the sales representative and his customer. But the palmtop looks more like a pocket calculator."

Both Sharp and Ericsson, the mobile phone giant, have discovered a ready market for PDAs with linked devices such as cameras and phones in the insurance loss adjustment market, *(see case study, right)*. But feedback from corporate palmtop users has provoked suppliers into rethinking the physical design of their products. Compaq is toying with a variety of experimental shapes for computing devices aimed at vertical markets. The physical "look and feel" of the palmtop is now known as a "form factor" in IT industry jargon.

Gernot Radl: 'The insurance sector is an important market'

Korea's $74bn LG Group – its interests range from shipbuilding to sporting goods – has entered the palmtop market with the £450 Phenom. Unlike more expensive palmtops, the Phenom has a monochrome screen, vastly extending battery life. Matthew Evans, UK assistant product manager with LG's $19bn electrical goods and electronics arm, says IT managers are being attracted to the Phenom by this basic feature.

"Some managers want to replace laptops with a mono palmtop because of longer battery life and lower unit cost," he says.

LG claims up to 15 hours' use with one battery. An internal project, code-named Express, is now looking at the possibility of allying the low cost and weight of a palmtop with a near full-sized keyboard, enlarging one aspect of the palmtop while keeping key selling features.

LG's experience confirms that the user is now driving the "form factor" debate. Eider Computers, a £500,000 British company, specialises in medical software. It sells a cancer management system, Oncology Patient Management and Audit System, known as Opmas, at prices ranging from £25,000 to £100,000.

This sophisticated software resides on powerful servers at hospitals and in pharmaceutical companies. But its latest manifestation is on cheap palmtop computers issued to nurses in the UK and Holland. Eider has written a series of questionnaires for home-bound patients, and the visiting nurse goes through the list of questions using a Palm Pilot, an ultra-compact palmtop that relies on handwriting recognition and sells for £100 to £300. The Palm Pilot comes from US Robotics, now owned by 3Com.

Jeremy Cummin, managing director at Eider, says "the form factor" of the Pilot – which works under a highly popular operating system from US Robotics, called Palm, and offering an alternative to Windows CE – is a key issue: "There is a need to collect patient data at home, to find out if the patient is comfortable. The Palm Pilot is held by the nurse, who e-mails the data to a host computer at the hospital. There's no question that a very small machine is less intimidating than a laptop, especially in medicine where patients are already worried by their condition."

Nurses find laptops unwieldy, says Mr Cummin, and they like the fact that at £100 per unit, it is not a big problem if the unit is lost or damaged.

"The Palm Pilot has very good handwriting recognition, the pen input device is very useful for the relationship between nurse and patient," he adds.

A clicking keyboard is one "form factor" that can unsettle the nervous and uncomfortable patients. Eider has been developing applications for the Palm Pilot with King's College Hospital in London, and released a system for Dutch hospitals six months ago. "This is the only way we can handle the input of quality of life data direct into Opmas. We've never been able to do that before," he adds.

At Compaq, Mr Radl believes his products may well capture 20 per cent of the European market for new palmtops in the next six months. But he admits that the actual size of that market is open to interpretation, with different analyst groups placing the number of units that will be sold over the next year in Europe at between 100,000 and 160,000.

With products ranging from a monochrome screen C Series at £425 ($701) up to a full specification colour machine at £580 ($957), he thinks Compaq can address the price sensitive nature of this new family of computers.

"Most corporate people want the essence of a computer in their hands, but they are willing to compromise on aspects of the PC, such as power or screen size."

Ultimately, choosing a successful "form factor" comes down to suppliers gambling on the right compromise for a vertical sector. Eider's experience proves that the same rules apply to nurses as to financial services sales teams. This variety of linkages will give birth to more applications – and different sub-species of palmtop.

CASE STUDY: INSURANCE CLAIMS • By Michael Dempsey

Key role in disaster zones

Highly portable palmtops help provide rapid links with loss adjusters

Insurance companies do not always enjoy a loving relationship with their clients. Many people making a claim for loss or damages from their insurer expect a long wait before the cheque arrives.

However, Neil Courtney, UK sales and marketing director at Imbach RAG, thinks this is a false image. His £4.5m operation is part of a £140m German-owned European company that he describes as a "disaster management company." This involves fire and flood registration work on behalf of a client base of some 3,000 loss adjusters in the UK.

According to Mr Courtney, insurers do not want their clients to sit around waiting for restitution. "They have a quite genuine interest in retaining their customers – if a problem occurs and the insurer doesn't respond promptly, the customer will take his business elsewhere."

Technology enters into this equation as a means of accelerating the process of paying up. Imbach RAG has been searching for ways to speed up its own organisation – and palmtop computers from Sharp have emerged as a powerful and practical answer. Mr Courtney's field staff now carry Sharp HC-4000 palmtops with a digital camera attached.

"Where there has been a domestic fire and goods have melted or been damaged by smoke, the palmtops are of real value to us. We can collect information very quickly and provide an accurate quote for the loss adjuster."

Imbach RAG staff have written up a routine within the Excel spreadsheet that sits on each Sharp palmtop. This allows them to enter a particular type of loss, such as the number of dining room chairs damaged, and compute the cost or restoration based on their extensive experience.

When the palmtop is plugged into a GSM mobile phone, the loss adjuster can receive data in less than an hour and then issue instructions. Imbach RAG staff can also assign specialist repair work while they are still on the site, calling in local companies.

The digital camera clips to the right side of the palmtop, and allows the investigator to record an accurate picture of the damage to the site and incorporate it into his report. This provides a formal record of the extent of the damage in the event of any dispute between the insurer and the customer.

"The digital camera sends a little file across to the palmtop, mounting the photo and inserting it in the Excel file. The whole report is then e-mailed to the loss adjusters," says Mr Courtney.

The palmtop and digital camera combination comes to around £1,000. Mr Courtney adds that the issue of laptop computers was not a viable option for the kind of situation his staff face. In the aftermath of a fire, his investigators must work in a potentially dangerous environment – they cannot balance a portable computer while picking their way over broken floorboards. "But the palmtop and digital camera can slip in a coat pocket. Carrying around a laptop computer in this type of work is asking too much of people."

Imbach RAG has 60 staff in the UK, of which around 30 spend time out of the office visiting sites where fire or flood have struck. He thinks the arrival of the palmtop incorporating the familiar Excel spreadsheet has improved the service he provides. "We look like a better and more professional supplier to our loss adjuster clients," he believes. With between 2,000 and 3,000 disasters to visit every year, his palmtop workforce are kept busy. This system may be exported to Imbach RAG's 700 staff operating across the rest of Europe. "We have an enormous amount of business in France: the colour palmtop using Windows could be a good route for investigators there."

The potential of PDAs in this marketplace has been spotted by BT. Its mobile solutions division is selling a package consisting of an Ericsson mobile, linked to a monochrome screen palmtop sourced from HP via an infra-red docking port.

David Moore, head of BT's mobility solutions division, says his staff are working with Ericsson to put more applications on to MC16 series. BT is marketing the phone/palmtop combination with support at a typical price of £25 per week per unit. "We're not just selling the box and mobile phone airtime," says Mr Moore. "Ericsson and BT are working on software that's highly relevant to particular working environments."

This Sharp HC-400 hand-held computer has useful applications in the insurance sector. The computer can be attached to a digital camera to record an accurate picture of damaged areas

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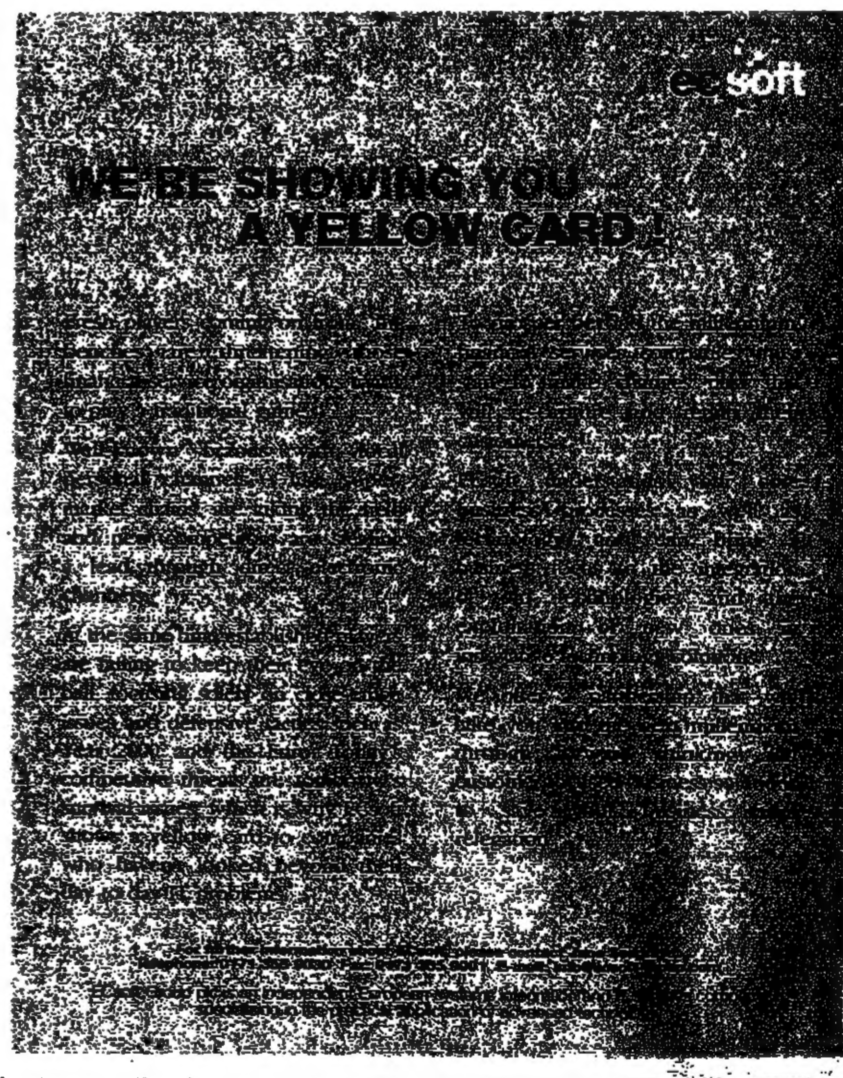

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SMARTPHONES • By Jola Shillingford

Desirable devices for mobile executives

In the longer term, smartphones may include three-dimensional holographic images of the caller

Mobile phones are becoming more like computers. Information can be sent to their tiny liquid crystal displays on all manner of topics – from horse racing results to property prices. But if you want to surf the Internet, then their screens are still too small – for the time being, at least.

A new generation of smartphones is on the way with larger screens and the features of a personal organiser. Smartphones such as the Nokia 9000 already exist with organiser and big screen built in. But it is likely that the new generation will weigh less and be even more versatile.

What is really changing in this area is the onset of standards. Leading mobile phone companies, Ericsson and Nokia, as well as a number of other companies have formed a joint-venture, Symbian, to develop personal organiser company Psion's operating system for use with mobiles.

Once standard operating software is in use, more applications will be developed for smartphones, making them more desirable. Ericsson and Nokia are also working with US company Unwired Planet on an internet-browser standard for mobiles using Unwired Planet's wireless application protocol (Wap) standard.

This will enable next-generation phones to browse the Internet easily. Then mobile executives will be able to use a single device to log on to their company's intranet (an in-house "Internet") or book airline tickets or hotels.

Alcatel and Mitsubishi have already built prototype large-screen phones and Nokia has bought Nortel's new smartphone. In the US, trials are being carried out of smartphones with Wap browsers. These browsers can be used to look at any Internet site.

However, software tools are becoming available which improve the way an Internet web site is displayed when looked at by smartphone users, according to Claude Aulagnon, head of telecoms product management at the computer services company, Sema.

One obstacle to Internet access over mobiles, though, is the low speed of data transmission over cellular networks. "It can take up to 30 seconds to connect to the Internet using a mobile connected to a personal organiser or laptop," says Alex Nourouzi, a consultant at the UK research group, Ovum.

Once connected, the maximum speed is 9,600 kilobits a second. This is fine for electronic mail, but agonisingly slow for surfing the Internet. The introduction of packet switching protocols over digital mobile networks should improve the situation.

Mr Aulagnon at Sema says: "Some network operators will be *beta* testing packet switching [where data is sent as packets] by the end of 1999 and will introduce services about a year later. Speeds of 115-200 kilobits a second will then be available."

Ken Blakeslee, vice president of business development at Nortel Wireless Networks expects it to be possible to triple these speeds when the Edge, a software improvement comes along in about 2000. "With third-generation mobile it should be possible to obtain speeds of 384 kilobits a second in around 2002, a bit earlier in Japan," he says. "And instantaneous connection to the Internet or 'wireless webtone' is quite close."

Even with today's mobile phones, information services can help to differentiate one network operator from another in a crowded market. In Hong Kong, information services such as updates on average property prices in different areas are not a big revenue generator in themselves, but the facility helps network operator SmartTone to gain subscribers.

Today, these services are transmitted using the Global System for Mobile's (GSM) short message service, which works similarly to text-paging. But these services could easily be adapted for access via the Internet.

Mr Nourouzi at Ovum says that "with higher data speeds, location-based information services that use Global Positioning Systems to pinpoint the user to within 100 metres, could become popular. Users could, for example, look up information on local restaurants."

Yet he believes mobile data must become easier. "Between 30 and 35 per cent of companies that Ovum surveyed globally have people experimenting with it for services such as electronic mail, fax and file transfer," he adds. "But most people are finding mobile data complex or unreliable when used from a laptop and mobile."

Higher data transmission speeds will also make it possible to introduce videoconferencing over mobiles. Hans Snook, head of the UK cellular network, Orange, plans to introduce videoconferencing by mid to late 1999.

In the longer term, he sees holographic images of the caller being beamed up via mobiles, so you can see a three dimensional head-to-toe image of the person to whom you are talking.

The only problem is that at present, it would only be possible to reproduce the caller in miniature. "Further developments will be needed to beam a full-size holographic 'person' into your living room," says Mr Snook.

Dilip Mistry, Windows CE product manager at Microsoft UK, sees a use for CE (a stripped down version of Windows) on smartphones or personal organisers in cars. "You could carry a handheld device and transmit the information from it into your autoPC via an infrared wireless link," he says.

"The car would know where you were going because it could check the updated diary in the autoPC. It sounds futuristic but Clarion will be selling this product in the US by the end of the year."

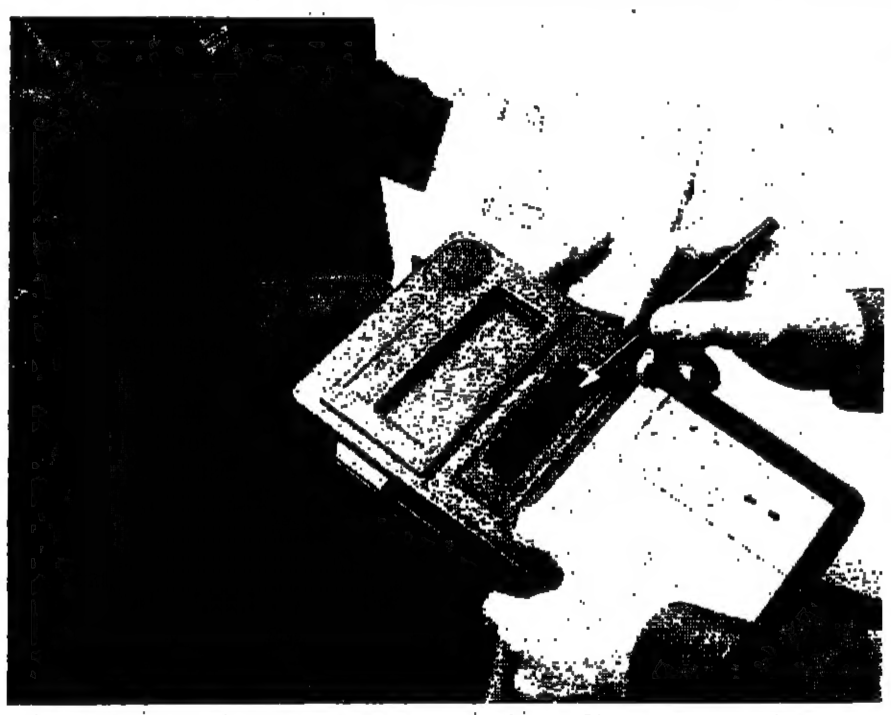
Smartphones seem set to catch on. But there is still some debate in the computer and telecoms industry over what device mobile executives really want. Is it a laptop? Is it an organiser? Or is it a phone?

Mr Mistry says it doesn't really matter what you call the device: "We have a number of products in development with partners including a smartphone, the autoPC and larger personal organisers. In Japan, there's even a microwave connected to the Internet that dials up to get spot-on timing for recipes.

"Or you can get a little organiser and plug in a voice card. What do you call the organiser then? Because it's now a phone as well."

The truth is that the perfect device is still some years away and, in the short term, smartphones may be just what the executive wants. The only problem is that – as slow sales of existing smartphones have shown – the perfect smartphone is not here yet.

This system – held by Tiina Semmalahti from Finland's Nokia communications company – includes a combination of mobile phone and personal computer that comes complete with Internet-access software. The phone opens up to reveal a small keyboard and computer screen, allowing users "on the road" to keep up with e-mail, send faxes and download information from the Internet AP



Industrial portables

□ Pictured above is the Diad hand-held computer, developed by United Parcel Service (UPS) to capture delivery information electronically by drivers at the point of arrival. Diad stands for "delivery information acquisition device."

□ Pictured, left, is the new Husky MP2500, a rugged computer with many out-door industrial applications, suitable even for extreme weather conditions. This computer, costing under £1,000 ($1,650) evolved from a two-year research project. The shell, made of advanced impact-modified plastic, replaces earlier versions in magnesium alloy, thus reducing the computer's cost.

FINANCIAL SERVICES: RESEARCH UPDATE

THE KNOWLEDGE LAB • By Paul Taylor

NCR breaks new ground

Researchers examine the direction of banking and electronic commerce technologies

Among the challenges Lars Nyberg, NCR's chief executive, has set for the US-based technology group, one – turning NCR into a "thought leader" in the financial services industry – has moved step closer to reality over the past two years.

NCR's London-based Financial Services Knowledge Lab was set up in September 1996 and charged with developing the technologies that will change the way consumers bank and shop in the future.

The Knowledge Lab's 15-strong full-time research group, which comprises scientists, designers and artists led by Stephen Emmott, director, works closely with partners from leading banks and universities from around the world on a wide-ranging research programme.

Main aim

"When we set up the Lab in 1996, we had a simple purpose: to better understand and shape the future of the financial services industry," says Mr Emmott who has a PhD in computational neuroscience from Stirling University. He worked for British Telecom Labs and AT&T's Bell Laboratories in New Jersey before joining NCR.

"Since then, we have begun an exciting programme of research which is unique in the industry in both its scope and its approach. The Lab has attracted an incredible diversity of talents, from scientists to artists. And, in partnering closely with many of the world's leading banks and universities, we believe we are truly fulfilling our promise to revolutionise the relationships banks have with their customers."

The team is working on more than 20 projects which range from revolutionary new ways for banks to predict the behaviour patterns of their customers to studies of how consumers themselves will react to the new technologies that are emerging. The Lab's current research programme projects fall into three main areas. These are:

□ Convergence, commerce and interaction – issues such as electronic commerce and the role of intelligent agents.

□ Consumers and adoption – including how young and old people will want to bank.

□ Computation and modelling – including ground-breaking research on the use of technologies such as Bayesian Inference and Genetic Algorithms in banking.

□ Product and service delivery – one of the key areas of focus for The Knowledge Lab is the evolution of new and innovative ways to deliver products and services to consumers through the development of so-called "relationship technologies", divided broadly into three areas – personal, public and home.

Among the most exciting innovations which have already emerged from the Knowledge Lab are the "Virtual Idol" – a web-based soap opera in which an on-screen character called Rei introduces and sells the goods and services she uses as part of her lifestyle. (Rei is an 19-year-old Japanese student living in London who likes shopping, music and roller-blading).

The project is exploring the technological challenges in creating interactive characters on the Internet that have intelligence, and can act as software agent-based (but human-like) financial advisers and recommendation engines.

A second team is working on "relationship tokens" – chip-enabled plastic tubes that allow businesses and consumers to connect across the phone network to transfer funds or messages from wherever they are.

The tokens come in either pairs or groups of any size. When one (or more) is given, the other is retained by the giver. Each token in, say, a pair is then connected to its twin token and able to communicate with the other token, and its owner, anywhere in the world.

A token user calls the recipient of the other token in the pair by simply touching the token or by, for example, clicking on the calling name in a database. The other token then flashes to indicate that it is being called. The caller-user identifies the call with the calling-user because only twin tokens can call each other.

The tokens encapsulate two key elements of electronic commerce – the ability to purchase and transact electronically using electronic money and the ability to communicate and build one to one relationships via an electronic channel.

Stephen Emmott works closely with banking partners

Electronic money today usually takes the form of a smartcard, but Mr Emmott believes e-money will eventually move to contactless technology – and so the need for e-money to be in a standardised card-based form will become redundant.

Money could then be held in any form of token capable of storing value and transactions on a chip, such as a ring, a watch, a cufflink or other personal "tokens". Once the infrastructure is in place, these tokens could then be simply waved over any point-of-sale device, automated teller machine or telephone in order to buy goods or re-charge with e-money.

The Knowledge Lab research team is also working on a revolutionary new way for banks to predict the behaviour patterns of their customers using mathematics, developed by the Rev Thomas Baynes.

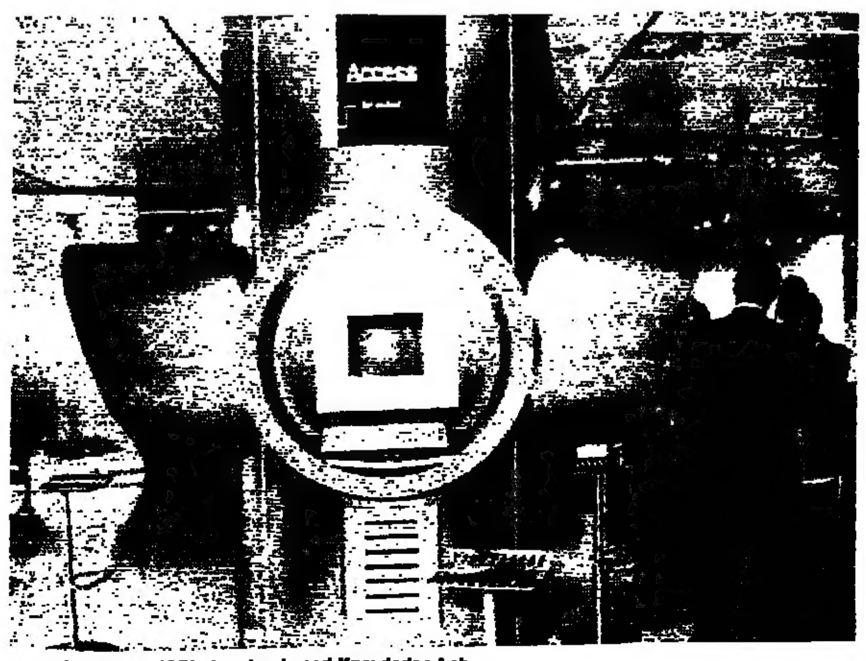
"The pace of change in banking has never been faster than it is today. If anything, it's going to speed up over the next decade," says Mr Emmott. "It's partly about technology with the Internet, the television, the mobile phone and other appliances opening up as new ways for people to bank.

"But there's much more to it than that. Convergence and the growth of electronic commerce means that banks can become retailers – and vice versa – which means the old rules of how people did business will no longer exist.

The Knowledge Lab is trying to find out what strategies will succeed, which technologies will become possible – "and, of course, what consumers will think of it all," says Mr Emmott.

"No-one else is doing what we're doing," he says. "The Knowledge Lab is in a unique position to define the direction of banking and electronic commerce technologies that will be accepted and adopted as an integral part of our everyday lives."

For further details: the Lab's web site is at http://ncr.knowledgelab.com



A section of the NCR's London-based Knowledge Lab

EPIC '98

Paving the way for better government

A UK conference later this month will examine new ways of delivering better government services, using information technology, establishing the government's secure intranet and meeting the 25 per cent electronic service delivery target.

Organisers of the three-day event in Birmingham hope that government departments in the UK, given the task of delivering on the policies set out in the forthcoming "Better Government" White Paper, will gain fresh insights on how to meet the technological challenges at EPIC 1998 – the European Public Sector Information Systems Conference and Exhibition.

Organised by the UK's Central Computer and Telecommunciations agency (CCTA) and Interactive Information Services, the event will take place at the International Convention Centre, Birmingham from September 30 to October 2.

"Information systems (IS) in support of better government" is the theme of the EPIC 1998 Conference, which aims to help government departments implement the proposed technological changes and develop effective working practices for electronic service delivery.

Expert views

Presentations will be delivered from an expert panel of speakers including keynote addresses Dr Jack Cunningham, the Chancellor of the Duchy of Lancaster; Sir Richard Wilson, cabinet secretary and head of the Civil Service; and David Cooke, director, Central IT Unit. A vision of how public services might be delivered in the future will be revealed in a session entitled "2020 Foresight," hosted by the CCTA.

The programme will also include case studies on similar challenges faced by larger organisations both from the public and the private sector, and from overseas. International sessions will include a case study from the US Treasury Department on ways to ease the skills shortage.

Bob Assirati, CCTA's chief executive, who will be delivering the opening address, comments: "It is clear that the soon-to-be-published White Paper will permeate all layers of government. The EPIC 1998 conference will provide the first and the most comprehensive analysis on how the effective use of technology can deliver the expected policies."

The EPIC conference programme was put together following targeted research among senior civil servants. This survey identified several key issues such as Best Value in practice, improving staff retention and the intricacies of the government's secure intranet, that form the core programme for the three days.

For further details about the event, including delegate fees and accommodation, contact Interactive Information Services, telephone 0181 541 5040; e-mail: softworld@softworld.com; or visit the web site: http://www.softworld.com/EPIC

IT in government will be a key theme of the November 4 issue of the FT-IT Review. For more information, see announcement, left.

Airline rolls-out Lotus Notes to 10,000 users

As part of its global IT strategy, British Aiways has delivered Lotus Notes to its 10,000th user throughout the world.

The electronic mail system forms the backbone of the airline's internal communications and is used in conjunction with Lotus Domino to deliver the company's intranet as well as provide full e-mail facilities to all users.

Lotus Notes is also used for making room-bookings and travel arrangements for travellers by 2,800 staff working at BA's new Waterside business centre. This UK complex has been built as the airline's focal business centre.

BA plans to have 24,000 users on the system within the next 12 months, says Gordon Jack, general manager of information management at the airline.

SOFTWARE SUPPLIER VIEWPOINT • Lotus Development Corporation

Rivals show new spirit of co-operation

Having contributed to the complexity of personal productivity software, Lotus is anticipating a return to a simpler approach, says Rod Newing

Office productivity suites are the most mature and proprietary sector of the software market. Microsoft Office is the market leader with 72 per cent unit share, against Lotus SmartSuite with 22 per cent. But as their functionality has grown, they have become so large and complex that both software suites require 130 megabytes of storage space.

"This is far more than anybody needs or wants," says Jeff Papows, president and chief executive of Lotus Development Corporation. "Both suites are too big and too bloated and there is a cost associated with all of this insanity," he says.

"A four-column two-colour document with 13 pieces of clip art is counter-unproductive, yet that is what we have built for people. There are tens of millions of 'person hours' wasted every year."

Change is overdue

The average user probably uses no more than 20 per cent of the functionality most of the time, he adds.

"It is a 15-year-old $5bn market and we have so much inherent complexity that maybe it is time for change," suggests Mr Papows.

"You can't cling to the old models forever, however profitable, without someone innovating in a way that recreates that market – and this one is overdue."

He believes that the IT industry tends to start off with a very elegant solution to a simple problem and then develops it to the point it is so complex that it is anything but streamlined.

When the solution is no longer practical, the industry retreats to simplicity and starts again, which happened when client/server computing moved to Web computing. It is cyclical and is about to happen in the software suite market.

The most immediate change is the adoption of hypertext markup language (HTML), the standard for formatting documents on the World Wide Web, as an alternative default file structure.

This facility would allow users to store all their documents in a standard format, instead of the proprietary formats currently used, which frequently change with each successive version of the application. Lotus has incorporated this change in its latest version of SmartSuite and Microsoft will be using it in the next release of Office.

Mr Papows sees this change as a result of a new spirit of co-operation with its old rival, Microsoft. "I have been working very hard for the last two years to do things very differently to my predecessors," he says.

"Lotus and Microsoft needed a much more pragmatic and reasonable working relationship, because we could no longer afford to jam our customers in the middle of our respective 'food fights', which both sides have done pretty well for a number of years! It is part of the industry growing up – or maybe the management is growing up a little bit?"

He has been working with Bill Gates, chief executive officer of Microsoft, on various practical aspects "that really benefit users, such as co-authoring a standard for calendaring and scheduling".

The adoption of HTML is the next large-scale example of this kind of pragmatism and will help people to share information.

The average size of an electronic mail message has gone up eight times in the last two years, because of the plethora of attachments, including word processor documents, spreadsheets and slide presentations.

"The problem is, you don't just need the same vendor's application to read the attachments, but the same version," he admits.

"Going to HTML format solves a lot of that problem, although it won't be perfect in the first iteration. It will get better with each successive version and it is a huge step in the right direction."

Both Microsoft and Lotus have already given users the option to save or publish individual documents in HTML, although most people store documents in the proprietary formats. By making HTML an automatic choice, what is already possible will become ubiquitous.

The adoption of the HTML electronic document format will have far-reaching implications for a suite of software designed to produce paper documents. The industry has long talked of the solution being to produce smaller software components, although early attempts have so far been unsuccessful.

In anticipation, Lotus has developed "e-Suite", a new alternative that provides only the 20 per cent of functionality that is used 80 per cent of the time, eliminating a lot of the complexity.

It also uses a client/server architecture to make it more network-efficient. It is written in Java, the standard programming language of the Internet, which means that it provides building blocks for larger applications at the same time as office productivity.

Although it is now only available for network computers, a PC version will be available by the end of 1998. The big problem for Lotus and Microsoft is that e-Suite sells for $39, compared with $300 for the current suites. In addition, it is much cheaper to maintain.

"It is early days and it remains to be seen if it will pay-off," says Mr Papows. "However, it is instinctively the right thing to do from an architectural standpoint.

"We have to have enough conviction to innovate and change the dynamics of the market, whatever the short term implications are.

"If we don't, the user community will rightly look for other solutions."

Mr Papows points out that Microsoft has not announced a similar solution: "Eighty per cent of its 35 per cent margin on sales was from its Office suite, so it is pushed too far into a corner."

The suite market has become so convoluted "that there *has* to be a change," he concludes.

"It remains to be seen how it will all work out, but it won't happen overnight and it won't change dramatically. However, at the end of the day, suites are still too big and too complex, so they must become more productive and more useful."

The man at the top of Lotus Development Corporation

Jeff Papows became president of the company in October, 1996, having been chief operating officer of the company since October, 1995. He joined Lotus in 1993 from Cognos, where he was president and chief executive for more than three years. Previously, Mr Papows held senior management positions with Cullinet Software, Software International and Para Research.

About Lotus: the company was founded in 1982, and is a subsidiary of IBM. Lotus products allow computer users to access and communicate information both within and beyond organisational boundaries.

Its products are sold in more than 80 countries, along with consulting, support and educational services through the Lotus Services Group.

Jeff Papows recognises that Lotus and and its old rival, Microsoft 'needed a much more pragmatic and reasonable working relationship' *Illustration by Walter Hayn*

FT BUSINESS WEB SITE OF 1998

Sponsored by UUNET UK

Competition entries at record level

Entries for the 1998 Financial Times "Business Web Site of the Year" competition are more than 50 per cent up on last year.

More than 120 enterprises from around the world have put their sites forward as having met key business objectives and judging will now take place this month.

The competition, which is sponsored by UUNET UK, the leading provider of Internet services to British business and a WorldCom company, was launched last year.

"It immediately attracted a rewardingly high standard of entries, but first impressions this year show this has been amply exceeded in quality as well as number," says Richard Woods of UUNET UK.

The Financial Times and UUNET established the competition to focus on the commercial benefits of web sites, rather than their pure graphic or design qualities.

Benefits

"What will once again impress the judges when they review the sites will be how the technology is being used to provided true benefits to the enterprise," adds Mr Woods.

"It is encouraging to see that most of the organisations who entered are recognising the benefits and potential of the web, and truly investing in the planning, implementation, and maintenance of their sites," he says. Sample entries range from international groups to smaller companies – all aiming to use the web to help expand their business and reach potential customers.

There are also recruiting companies and office suppliers for whom e-business or e-commerce is about the commercial value in the widest sense, rather than the simple process of exchanging goods for fiscal credit. Entries closed at the end of July and the judges will assemble later this month.

Entrants will be judged on their ability to demonstrate business transformation, innovations and measurable benefits using web technology.

The London awards ceremony will take place at the end of November. Winners will be chosen from each of the categories to find an overall winner of the "FT Business Web Site of 1998" award.

☐ For information about last year's competition, visit the web site at: http://www.uk.uu.net/events/ft1998/winners/

☐ Alternatively, contact Richard Woods, UK public relations manager, UUNET UK in Cambridge.

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RESEARCH AND DEVELOPMENT

The importance of innovation management

Continued from Page One:

manufacturer, as an example of a company that has used R&D to develop and maintain its core competency.

The group spent £1.86bn in 1997 on R&D – a 39 per cent increase on the year before and three times more than in 1992. In 1977, its core radio communications business, which supplies cellular systems and handsets, had sales of SKr110bn. Since 1992, sales have grown by 550 per cent, supported by an SKr77bn investment programme which ensured that Ericsson became recognised as a world class supplier of cellular equipment.

The value that Ericsson has created for shareholders is clearly demonstrated by the fact that the company's equity is now worth SKr420bn, compared with SKr12bn in 1992 – a 35-fold increase in six years," notes Galley.

A similar case could be made for Intel, the world's largest chipmaker, which will spend about $2.8bn on research and development this year, in addition to around $4bn of capital expenditure. "We always try to increase R&D spend," says Craig Barratt, Intel's chief executive.

Meanwhile, Cisco, the leading US networking equipment company which has been riding the Internet and e-commerce wave, doubled its R&D spend to $1.2bn last year. Three years earlier, the group, which has developed a rapacious appetite for technology-based acquisitions, spent just $89m.

Indeed, there is a growing recognition among investors of the link between R&D investment and long-term growth. And this in turn has been reflected in the share price performance of those companies that have mastered the art of extracting value from R&D spending.

As the pace of global competition quickens, it will be crucial to face the challenges of the future using innovation to build sustainable business success, says John Battle, Britain's science minister, in the introduction to the R&D Scoreboard.

"A key factor is investment in research and development, literally building for the future. Increasingly, technology delivers new products and services. No company can expect profits and growth tomorrow without serious investment today."

But he adds: "The amount of R&D investment can only be a partial indicator. What really matters is the effectiveness of that investment which depends on integrating R&D with business, marketing and customer strategy, and on the quality of innovation management."

Research update: NCR's "Knowledge Lab" breaks new ground in banking and electronic commerce technologies: see Paul Taylor's report on page 19

Bill Gates, chairman of Microsoft, the world's largest software group, meets Professor Stephen Hawking on a visit to Cambridge University, last October. Microsoft is giving £50m for a computer research centre to be based in Cambridge. Mr Gates is also giving a personal gift of £12m to the university.

FT IT

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To enter, see page 14 of this review for full details